



Τ	THE COURT: All right. Good morning
2	everyone. Let's grab a seat. It looks to me like
3	everybody has at least one attorney. So make sure
4	you look around, check for your co-defendants, and
5	make sure everybody has an attorney.
6	I don't think there is a big change in
7	attorneys from last week. I know, Mr. Villa, you're
8	on the telephone, and you will be gone this afternoon
9	and tomorrow; is that correct? Mr. Villa, are you
L 0	there? Got your mute button on? Mr. Villa? All
L1	right. Well, that's what I understand his situation
L 2	is; is that correct?
L 3	MS. FOX-YOUNG: Your Honor, Mr. Villa is
L 4	going to call in for portions. He might just be
L 5	getting on momentarily.
L 6	THE COURT: All right. And I understand
L 7	Raquel, your paralegal, is going to be calling in?
8 .	MS. HARBOUR-VALDEZ: Yes, Your Honor.
L 9	THE COURT: Are you on the phone?
20	MS. RODRIGUEZ: I'm here.
21	THE COURT: All right. Ms. Rodriguez, good
22	morning to you.
23	Any other changes in counsel this morning?
24	All right. I understand from Ms. Wild and
25	Ms. Standridge that you have the same thing I have in

1	front of me, and that is the notice, the batting
2	order for this week. And so the only other thing I
3	know to mention to you is I think that Ms. Wild has
4	been in touch with you about the jury questionnaires,
5	putting those into your hands. So if there is any
6	questions on that, we can discuss it. Otherwise, I
7	assume Ms. Wild has discussed that.
8	Ms. Wild, you're on the phone as well this
9	morning; correct?
10	THE CLERK: I am, Judge.
11	THE COURT: Is there anything I should go
12	ahead and put on the record about the jury
13	questionnaires?
14	THE CLERK: I don't think so. I sent out
15	that email. So just to confirm they received the
16	email and the rolling production and the date set. I
17	don't have the information. I think it should be
18	accurate.
19	THE COURT: How long is the email?
20	THE CLERK: The email is not very long.
21	THE COURT: Why don't you go ahead and read
22	it into the record so it's in the record. You and I
23	have talked about it, but I think it would be good if
24	I heard it and everybody else and it's on the record.
25	THE CLERK: Sure. I sent an email this

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1 Maybe we'll take them one at a time and deal with 2 them that way. Good morning, Your Honor. 3 MS. SIRIGNANO: 4 Amy Sirignano for Christopher Garcia. 5 THE COURT: Ms. Siriqnano. Mr. Lowry is going to take 6 MS. SIRIGNANO: 7 the lead on this one. 8 THE COURT: All right. Thank you, Ms. 9 Sirignano. 10 Mr. Lowry. 11 Thank you, Your Honor. MR. LOWRY: 12 conferred with the United States this morning, Your 13 I think your instincts are correct. 14 narrowed this down a bit. And I'm reading off of the 15 reply brief on page 2. With regard to the rough 16 notes, I believe that the United States has indicated 17 to us that they have preserved all the rough notes. And they've indicated that they're considering them 18 19 to be Jencks material to be produced on the Jencks 20 timeline. I know that there is at least a handful that we think may fall into the Brady, Giglio. 21 22 didn't get a chance to speak with Ms. Armijo about 23 that. But it comes to mind, the February 19 debrief with Eric Duran. So if we could just again request 24 25 that the United States do their Brady-Giglio review



for those materials, to see if there is exculpatory. 1 2 This is the Eric Duran 302? THE COURT: Yes, Your Honor. And there was 3 MR. LOWRY: 4 an audio-taped conversation, a sit-down at the FBI office in Santa Fe that was associated with that. 5 That's been produced in full. I quess my concern is 6 7 the rough notes may indicate that there is more to 8 that meeting than the tape recorder captured. think, if I remember correctly, Ms. Armijo didn't 9 10 seem to think that that was the case. But I don't 11 have the luxury of looking at the rough notes to 12 understand that or not. So --All right. Do you want to --13 THE COURT: 14 let's take these one at a time. Anybody else have 15 anything on that? 16 All right. Ms. Armijo. Your Honor, I believe that 17 MS. ARMIJO: what we indicated was we would review all the --18 there would be a review of the notes for 19 20 Brady-Giglio. I don't know that we agreed necessarily that they would be disclosed. 21 However, 22 they are being preserved at a minimum. I'll get 23 to -- and I think Mr. Lowry and I had briefly talked about this right before court, and we had agreed to 24 25 kind of talk over a break to try and resolve some of



these issues, because there is a couple of things that I had questions for him about. So that might be a better use of our time, because most of it, I think, is resolved, and we're working on a couple of other issues.

THE COURT: Well, if it's Jencks material, of course, what I've said in the past, you don't have to disclose it till Jencks requires you to disclose it. But if it is Brady or Giglio material, I take a little different position than the Government does; that needs to be turned over immediately. So if you do you find some Brady and Giglio material in here, Duran 302s or materials, then those need to be produced immediately.

MR. LOWRY: Your Honor, I want to echo what Ms. Armijo said. We had -- before court began this morning, we were working constructively through what few differences we have left. And I don't know if the Court's preference is to hold off on this to maybe right after the lunch break.

THE COURT: All right. Why don't we do this: Unless somebody has an objection, we'll put it aside, and see if y'all have any disputes. If there are disputes, I'll put it on you, Mr. Lowry and Ms. Sirignano, to tell the Court. Otherwise, I'll assume

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1	all the disputes have been resolved here. And y'all
2	tell me if you don't have it, you'll bring it back
3	up.
4	MR. LOWRY: Thank you, Your Honor. If
5	necessary we'll bring it right back after the lunch
6	hour.
7	THE COURT: All right. I understand the
8	next portion of the hearing will be the resuming of
9	the presentation of evidence and argument on the
10	motion to suppress involuntary statements. This is
11	1294 and 1295. Are these the two we're taking
12	together?
13	MS. FOX-YOUNG: Yes, Judge.
14	THE COURT: All right. So who has got
15	presentation of evidence? Do you have it, Ms.
16	Fox-Young?
17	MS. FOX-YOUNG: Your Honor, for Mr. Perez
18	we have no further witnesses.
19	THE COURT: All right. Mr. Maynard, do you
20	have witnesses you want to present?
21	MR. MAYNARD: Your Honor, we've discussed
22	whether to present witnesses, or in lieu of a
23	witness, an affidavit. And I would like to present
24	in support of Mr. Herrera's motion to suppress the
25	affidavit as an exhibit, the affidavit which is



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attached to the motion itself regarding the
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     conditions of -- the segregation conditions that he
     was in, and receipt of Suboxone from Mr. Cordova in
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     support of a motion to suppress.
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               THE COURT: All right.
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               MR. MAYNARD: And that's the end of our
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     evidence. We rest.
 8
                           All right. What is this going
               THE COURT:
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     to be marked as, as an exhibit in this hearing?
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               MR. MAYNARD: I need to talk to counsel and
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     see if --
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                            I believe it's J.
               MS. BHALLA:
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               MR. MAYNARD: CH-J.
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                           All right. Help me out, Ms.
               THE COURT:
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     Bhalla.
              Is that where you were on the hearings for
     the 1294 and 1295?
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               MS. BHALLA:
                           I believe so, Your Honor.
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               THE COURT:
                           I have that as your next
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     exhibit; correct?
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                           Yes, Your Honor.
               MS. BHALLA:
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               THE COURT:
                           Ms. Standridge, do you agree
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     with that?
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               THE CLERK:
                           Yes.
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               THE COURT:
                           All right. Any objection to
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     that from any other defendants?
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1	How about you, Ms. Armijo?
2	MS. ARMIJO: No, Your Honor.
3	THE COURT: All right. So Carlos Herrera's
4	Exhibit J will be admitted into evidence.
5	All right. Any further witnesses or
6	evidence, Mr. Maynard?
7	MR. MAYNARD: No, Your Honor.
8	THE COURT: How about any other defendants?
9	Anybody else have anything on 1294, 1295 they want to
10	present?
11	All right. Ms. Armijo, does the Government
12	have rebuttal evidence or evidence it wishes to
13	present?
14	MS. ARMIJO: We do not.
15	THE COURT: All right. Are the defendants
16	ready to argue the motion? Ms. Fox-Young?
17	MS. FOX-YOUNG: Thank you, Your Honor.
18	THE COURT: Ms. Fox-Young.
19	MS. FOX-YOUNG: As the Court heard in Mr.
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	Perez' opening argument and the Court is well
21	Perez' opening argument and the Court is well aware and familiar with the standard it is the
21 22	
	aware and familiar with the standard it is the
22	aware and familiar with the standard it is the Government's burden to prove the constitutionality of



does not depend -- need not depend upon actual violence by a Government agent, and that a credible threat is sufficient, and that that threat might be mental or physical. And that comes from Fulminante, which of course we cite, at 49 U.S. 279, at 287.

Without rehashing everything that we

briefed, and the information that's contained in our pleadings, I would just like to draw the Court's attention to some of the evidence that came out in the course of the hearing. The Court heard first about Mr. Perez' health -- not first in the hearing, but it's a critical factor -- the Court heard from Dr. Brislen, who at the end of our hearing on Wednesday described Mr. Perez as extremely fragile. She talked about the documentation, the evidence of a series of physical traumas to Mr. Perez, the multiple organ system problems that he had at the time of February 2016, his persistent and uncontrolled seizures, a low IQ that he had had documented since childhood, anxiety, severe pain for which he took tramadol and gabapentin. She talked about his seizure medication, which was changed in January of 2016, right before the statements that he made to Billy Cordova, and talked about how it wasn't tapered, and should have been. Also talked about his

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diabetes, abdominal problems, and other psych disorders.

Clearly, Mr. Perez' physical and mental health was well evident to the Corrections

Department. He had a walker outside his cell. And the Court heard from Physician's Assistant Martinez who said that he saw Mr. Perez approximately twice weekly during this time for various maladies. He was taken to and from those appointments by correctional officers.

The Court also knows that Mr. Perez had been in segregation all told at PNM, was a total of 10 months. He had been there since the summer of And prior to that, he was held in segregation 2015. at another facility. But he had been in segregation at PNM Level 6 since June of 2015. The Court heard that that was not pursuant to the Department's policy, which is only instructive insofar as it demonstrates that the Department was looking for reasons to hold Rudy Perez, reasons contrary and outside of policy, to hold Rudy Perez so that they could extract statements from him. And, you know, the Court will see that in the Government's response, the Government says Mr. Perez was not specifically targeted to be placed in restrictive housing. He was



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held there because he needed a handicapped cell, because he was an SNM member, because he'd had discipline. There is no documentation of this.

What there is documentation of is that well over a year after the Department had closed the books on the Molina investigation, they shipped Mr. Perez to Santa Fe and held him at PNM, and had no justification for it. He didn't have a hearing.

There was no credible threat as required by -- and I don't have the exhibits in front of me, if the Court would like to go through them -- but as required by the Corrections Department policies. They just held him there because they wanted to put him in a corner cell next to Billy Cordova and work to extract statements.

The Court heard from Mr. Roark about the deleterious effects of holding somebody in segregation. And I know the Court has heard various other cases in the criminal and civil context, and probably could take judicial notice of the effects of living in solitary, with little to no rec, no access to other people, to sunlight. The Court saw the cell where Mr. Perez was housed in the video. And just very limited stimulation for weeks and weeks and weeks on end.

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So at the time, then, that the Government places Mr. Billy Cordova, who had been opened as an informant and was acting as a government agent, in a cell next to Mr. Perez, the Government has already primed Mr. Perez to do what they want -- I mean, they want to extract statements. The Court heard from Agent Acee that Mr. Cordova was instructed to record statements and he said to get bodies, to get whatever he could in order to get that information for Mr. Acee.

I think Billy Cordova's testimony was very illuminating for the Court. One of the first things he talked about were the pressure points that he used to get Rudy Perez to talk. And he said, Your Honor, he confirmed absolutely the SNM was going to move on Rudy Perez. He said to this Court, "they were going to move on him," meaning they were going to kill Rudy because they thought that he was cooperating at the time.

And he explained -- and for background, the first indictment in this case was in November 2015.

Mr. Perez was not indicted. And so rumors were swirling around the prisons. Cordova testified that within days they knew the piece came from a walker, and they assumed it was because Rudy talked, that's

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why SNM members, including Billy Cordova, thought that piece must have come from -- they thought that's why the Government knew where the piece came from. Everybody suspected Mr. Perez. Mr. Perez knew it, and Billy Cordova knew it. And that is the main pressure point, in Billy Cordova's language, that he used to extract statements.

Mr. Cordova had every reason to do anything he could to get Mr. Perez to talk. He was getting a get out of jail free card from Agent Acee on the RICO case. Agent Acee made it very clear that Agent Neale was going to stop compiling overt acts against Billy Cordova if he cooperated, if he got statements.

I think the Court can also deduce from Mr. Cordova's testimony that he really can't be trusted. Agent Acee talked about how he had to close him as an agent because he couldn't follow the rules and he couldn't be controlled. And the Court should take that into consideration.

Next, the Court heard ample evidence, after all of the evidence of Mr. Perez' frailty, his situation, mental and physical, in February 2016, this agent of the Government, Billy Cordova, gives him Suboxone.

Now, Billy Cordova, of course, denied that



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on the stand. And the Government will argue that
there is no proof that he did provide it. The Court
heard on cross-examination that Cordova said he was
never asked by the Government whether he had given it
to Rudy, and didn't know it was the subject of a
hearing. He wouldn't cop to giving him Suboxone when
he was on the stand, but he knew everything about
Suboxone. The Court heard him talk about using it in
every facility except for he says didn't use it in
Clayton. He talked about how he fished a line, how
he would fish a line, how he had fished lines through
the vents of the cells. He walked through the video
from PNM and said exactly how it was done. How much
it took to get high, when he would take it, how you
would get it. He knew in and out everything there
was to know about Suboxone, and freely admitted that
he would use it, and he would share it if he had it.
The Court heard from Mr. Perez, of course,
who testified credibly that he had been given it, and
he had taken it on multiple occasions when he talked
to Billy Cordova.
The Court also heard from Dr. Edward
French, who testified both in direct and on cross

overbearing someone's will. I think Ms. Armijo asked

about the effect that Suboxone could have on

him directly if that was possible. And he said,
Absolutely, reduces judgment, reduces executive
function. I think, when you look at Rudy Perez and
the state that he was in, the time that he had spent
in seg, the time -- or the numerous and escalating
physical and mental conditions that he had, then he's
given Suboxone, I think clearly could overbear his
will. And it did.

I think when the Court looks at the standard from Fulminante, and the Fulminante case itself, the facts here really do parallel that case. They come about as close as you can come to Fulminante, given the circumstances here.

I'll note that the Tenth Circuit in United States versus Gonzales; that's 164 F.3d 1285, at 1289, has discussed the relevant factors that courts have identified in considering whether or not there is coercion. Those include the suspect's age, intelligence, and education, the length of detention and questioning, the use or threat of physical punishment, and whether Miranda warnings were given, and the accused's physical and mental characteristics, the location of the interrogation, and the conduct of the police officers. One by one, you know, the Court heard about Mr. Perez' age,

intelligence, and education, and his extreme debilitating physical conditions, his mental state. He had been in seg for a long period of time, which clearly had consequences and effects for him; the conduct of the Corrections Department and the FBI and Billy Cordova all working together to extract these statements from him; the where he was placed; the fact that he was placed in a cell where he could only talk to Cordova, all really significant.

And you almost can check every box when you look at these factors that have been identified. I think this is absolutely a clear, almost textbook case of coercion under those cases.

The Court will likely remember the facts from Fulminante, where the Supreme Court affirmed the Arizona Supreme Court. In that case, a prisoner had confessed to a fellow inmate who was a paid informant. The prisoner, the defendant there, had been in prison in New York, and he was befriended by the CI. The CI learned that he was a suspect in the murder of his 11-year-old stepdaughter in Arizona. And the CI told him, Look, I'll protect you from other prisoners who have learned about the fact that you're a suspected child killer, if you'll tell me about the murder. And he did. And he did it for



protection. The CI then reported the confession to police. And Fulminante was charged. At trial, the court denied his motion to suppress, and he was convicted. And he was sentenced to death. The Supreme Court, on hearing this, explained that because that CI's offer of protection was based on a credible threat of violence, Fulminante's will was overborne in such a way as to render his confession the product of coercion. And then the Court didn't rely on these factors in that case, but talked again about low intelligence, lack of education, small stature, and feelings of vulnerability.

Mr. Perez, when you look at all these factors that form the context for where he was in February 2016, when he made these statements, he absolutely was vulnerable. And it was that threat, Billy Cordova saying they were going to move on him, that was in his mind, among other things, when he made the statements. Cordova knew that he could get him to say virtually anything because he couldn't protect himself. He couldn't defend himself. Mr. Perez was largely immobile. He was very sick. He knew that -- and as he told the Court, Billy Cordova had a big mouth, and he would protect him if he gave him what he needed. And that's exactly what he did.

The Court I think is also well aware of the Guerro, G-U-E-R-R-O, decision; that's Tenth Circuit, 983 F.2d 1001 at 1002. That's a case from 1993. And the Government cites it. The Guerro court found that the police must overreach by exploiting a weakness or a condition known to exist in order to find coercion. That's exactly what happened here.

And I think the Government -- we'll see what they have to say, but I think they'll likely argue that, Look, Corrections Department put Rudy Perez where they put him. The FBI didn't know. And Billy Cordova just popped up in Level 6, and this just happened. That's not the way it works. All those entities and Mr. Cordova were working together as government agents, and they exploited the weaknesses and vulnerabilities in Mr. Perez, knowing that there were rumors that he was cooperating, and knowing that he feared for his life.

And that, Your Honor, is precisely what makes the extraction of these statements coercive -- in our briefing we cite to -- I've given you Gonzalez -- I think the Court in Tafoya looked closely at this issue. That's your case, Your Honor. Of course, in Tafoya, the individual was Mirandized. And all the cases point out that that's pretty



1	significant. Here, of course, Mr. Perez wasn't. But
2	I think if the Court looks to the cases that you
3	cited in Tafoya, they are also instructive. I'll
4	also point the Court to Beecher versus Alabama case,
5	where the Supreme Court held that the confession of a
6	prison escapee, accused of rape and murder was
7	involuntary, when he was questioned by investigators
8	in an infirmary while he was under the influence of
9	morphine for a gunshot he sustained. The court heard
10	from Mr. French that Suboxone is stronger than
11	morphine. And the cocktail that Mr. Perez was on, I
12	think, clearly makes the statements involuntary.
13	And unless the Court has any specific
14	questions, I will respond in a reply.
15	THE COURT: I don't believe I have any at
16	this time. Thank you, Ms. Fox-Young.
17	Mr. Maynard, Ms. Bhalla, do you have
18	argument on Mr. Herrera's part?
19	THE COURT: Ms. Bhalla.
20	MS. BHALLA: Thank you, Your Honor. I'll
21	try to keep it brief. I think that Ms. Fox-Young did
22	a good job going over the case law.
23	You know, Your Honor, I think it's
24	interesting that some of the testimony was that they
25	didn't know why these guys were in seg, or that it

was part of the investigation. The policy, when you look at it, is pretty clear that they have to have a real, justifiable reason why these guys were put in administrative segregation.

And I think that the evidence that we've submitted through the records shows that after the Molina homicide, Mr. Herrera was put on lockdown from the time of the homicide onward. They're still in administrative seg. And that is absolutely a tool that the Government can use to prime the pump to get people ready to make statements.

One of the things I find the most interesting about that argument is when you look at the internal documents regarding Mr. Herrera, you see that there were no articulable safety threats in any of the other documents. In fact, his classification records indicated that he had no gang activity for the past 10 years, and there were no active security threats on his file, which tells you that that wasn't done as part of the investigation into the Molina homicide. It was done for a specific purpose and for a specific reason.

Mr. Cordova testified that drugs are life.

At first, he denied having this conversation with

Special Agent Acee. But later, he admitted to him





that when Special Agent Acee brought him in to talk to him before he was put in the cell next to Mr.

Herrera and Mr. Perez, Look, drugs are life. And Special Agent Acee testified that he doesn't recall giving him any special instructions not to use drugs when he was placed next to Mr. Herrera, even though Mr. Cordova told Mr. Acee, and Mr. Acee was aware of the use of drugs.

And I want to think about, or draw the Court's attention to what happens in a typical controlled substance bust. When you've got an agent working with an undercover person; they go to buy drugs, they get searched. They search them. Thev make sure they don't have any other money, they make sure they don't have any other drugs, they make sure it's a clean site, they send them, they do the bust, they come back and then they make the arrest. of that happened here. And it happened for a reason. They didn't search Cordova. They didn't make sure he wasn't using drugs. They weren't checking his tape or checking the recording out to make sure that there were no tools of coercion being employed. turned a blind eye to it because it was beneficial to And there is no doubt that Cordova was working them. as an agent for the Government.

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I'm going to ask the Court to really take a look at the transcripts that we admitted during this hearing, and to look at Mr. Herrera's statement, and to look at the number of inaudibles and the number of stutters, and the number of times he's nonresponsive.

The evidence in the transcripts, where Mr. Cordova is talking about how much he can get drugs for, about purchasing drugs, about giving those drugs to the people who were next to him in the cells. There is ample evidence for the Court to find that this was happening and that this was going on, and that Mr. Herrera was impaired at the time he made those statements, just by looking at the transcripts. And Special Agent Acee himself testified that that would be something he would consider as a DRE officer: A person's ability to comprehend, understand, and respond to questions.

One thing that Fulminante and these other cases talk about, one of the major reasons we have --we have limits on this. And one of the reasons the Court should look at suppressing this is to prevent future violations of the Constitution. And that's the question I have, you know, for the Court: Is this how we want to do business? Do we want to be putting informants next to people and allowing them

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1	to give drugs to defendants who have been in
2	lockdown, who have been isolated, who have been
3	deprived of pretty much anything resembling a normal
4	life, give them drugs so that they can get
5	statements? Is this how we want to do business? And
6	I would pose that the answer to that question is no.
7	And I would ask the Court to look at the
8	transcripts, to look at Mr. Herrera's affidavit, to
9	look at the documents that prove that NMDOC had no
10	reason to put these guys on lockdown, and to suppress
11	the statements.
12	Does the Court have any questions for me,
13	Your Honor?
14	THE COURT: Not at this time. I appreciate
15	it, Ms. Bhalla.
16	MS. BHALLA: Thank you, Your Honor.
17	THE COURT: All right. How about any of
18	the defendants? Do y'all want to speak on these two
19	motions to suppress by Mr. Herrera and Mr. Perez,
20	from the defendants?
21	All right. Mr. Beck, are you going to
21	handle the argument here?
22	handle the argument here?



first at Mr. Perez. And Your Honor was able to view Mr. Perez on the stand. And it's important to look what was in the motion, versus where we've come to today.

The first thing in the motion was the statements are not voluntary and not intelligent, because Mr. Perez was under the influence of Suboxone provided to him by Mr. Cordova. You heard Mr. Cordova get up on the stand and say he didn't do so. You heard Mr. Perez contrary to that.

But I want the Court to look at cross-examination of Mr. Cordova, because Mr. Villa brought out from Mr. Cordova that Mr. Cordova was a soldier, and that he was known for talking a lot. And indeed, Mr. Perez was intelligent enough, although purportedly under the influence of Suboxone and couldn't give voluntary or intelligent statements, but yet was intelligent enough to know that he could use Mr. Cordova to spread rumors amongst everyone else in prison that he wasn't a rat. So that gets rid of the not voluntary, not intelligent. Mr. Perez said that same thing on the stand. He said he knew Mr. Cordova was a soldier, he knew he talked a lot in the prisons. And Mr. Perez could use Mr. Cordova to spread rumors around him to

insulate himself.

So the key inquiry here is whether they were voluntary and intelligent statements, or whether they were coerced statements by some mental incapacity. Mr. Perez' own testimony, as well as cross-examination of Mr. Cordova, by his own counsel, get rid of any possibility that Mr. Perez did not give voluntary and intelligent statements. Indeed, both of them brought out that he used Mr. Cordova in a very intelligent manner.

And so regardless -- I mean, the inquiry is clear: There has to be some mental incapacity. That mental incapacity then has to be known by the Government. And then, third, the Government has to take advantage of that known mental incapacity.

So the Court doesn't even have to reach the decision here whether Mr. Cordova actually provided Suboxone, because Mr. Perez' testimony was clear that he provided a voluntary and intelligent statement.

Indeed, Mr. Perez said that he could recall specific details about who was involved in the Molina homicide from months before, when they were in a different facility in the X pod.

Now, Ms. Fox-Young got up here and talked about how we can't believe --





THE COURT: I'm not sure I quite understood that last statement. If you want to elaborate or say it again.

MR. BECK: Yes. When Mr. Castellano was cross-examining Mr. Perez, he asked Mr. Perez: You have all these specific details that identify exactly who was involved in the Molina homicide, who had the shanks, who made the shanks, who stabbed Molina, who took the shank after the murder, who didn't take the shank after the murder, although he should have. do you remember those? And Mr. Perez said, Well, Mr. Cordova told me, and that's how I knew those. Mr. Castellano dialed him down and said, Well, when did he tell you this? He said, Well, we were all together in X pod months before Billy Cordova came in, and Eric Duran came in, and they had these recorders; months before that we were in X pod.

And so now you've got someone who is asserting in the motion that he was under the influence of narcotics, or he didn't have a high enough IQ, or somehow his physical disabilities prevented him from making voluntary and intelligent statements, when he did so, but yet, he can recall specifically the exact things that -- not that he knew, but that he was told only months before that,

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or months before that. I mean, that just is not credible, to know every one of those details, having only been told that, as opposed to actually experiencing it and actually being there.

So any claim that his statements were involuntary and unintelligent are just vitiated by his testimony and by what Mr. Villa brought out on cross-examination.

To the extent -- I think there was something about, if you look at the Fulminante case, in that case, the defendant's statement was involuntary because he was given a promise of protection. There was never any testimony brought out from Mr. Cordova. Mr. Cordova never testified on direct examination that he ever promised Rudy Perez anything in exchange for these. What he said was that he used pressure points, which Ms. Jacks brought out on cross-examination. He said -- and you'll find this in the transcript when they're produced -- he said in response to Ms. Jacks' cross-examination what he meant by pressure points was that they can't come out directly and say, Hey, did you do this? what he was doing was -- I'm quoting -- "trying to get him to reveal the truth." So pressure points meant he was talking in coded language to try to get

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the truth out, because in the prison walls, if you're surreptitiously recording someone, you can't say, Hey, did you provide the shanks for the Molina homicide? So with all that evidence, it's destroyed.

Now, if we get to the contentions about being kept in involuntary segregation, and this elaborate plan and this ruse to keep all of the SNM members throughout the entire prison system in Level 6 secured lockdown, just so that we could go and -- just so that the FBI could go and get statements from two people in the SNM, Perez and Herrera, if we think about how illogical that is, when they said they had hundreds of SNM members that were locked down, that contention doesn't hold water.

But beyond just that being not logical, the testimony didn't support it. You heard from Mr.

Roark the reasons -- and he was in control of this, he was head of the adult prison system. You heard from him the reasons they were on lockdown. The Molina homicide was that, if you look back at the policy, it says, a violent incident was one of the requirements. That's the Molina homicide. So he attributed that to the entire STG, Security Threat Group, all SNM members, all SNM-suspected members.

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Now, that might be too broad, but that's

not the inquiry here. That may be -- as I said in opening arguments for this, that may be a reason for a 1983 claim from Mr. Perez, Mr. Herrera, or other SNM members, but it's not a basis to find the statements involuntary or coerced by law enforcement in some manner.

So, to find that there was coercion -excuse me, let me go back -- so the Molina homicide,
and then as soon as they were being let down and
preparing to let them back into Level 4, in the
summer of 2015, in July 2015, Mr. Roark told you
there was the Julian Romero assault, and they were
again -- that was a violent incident, now they're
back into Level 6 under the policy. So the fact
testimony from Mr. Roark, you heard it from the
horse's mouth about why those decisions were made,
and they do fit within the policy. There is a
violent incident.

To find that this was a ruse, and that the FBI somehow placed Mr. Herrera and Mr. Perez in the cells solely to put Mr. Cordova next to him, you have to find at least two people's testimony up there on the stand incredible. You have to find that Special Agent Acee lied when he said he had no information about why they were placed there; he didn't direct



anyone to do that; he didn't ask for anyone to do that. And you have to find him lying when he said he didn't hear that from any of the STIU officers or from Mr. Myers. You also have to find that Mr. Roark lied when he said he didn't have any information from the FBI asking him to move Mr. Herrera and Mr. Perez. You have to find that Mr. Roark lied when he told you that they placed them in Level 6 because of the Molina homicide and then because of the Julian Romero assault. So that's two-fold.

I think that gets rid of Mr. Herrera's claim about being put there. Also, I think the argument was: Read the transcripts, there is a lot of unintelligibles. If the Court looks closely at the transcripts here, what the Court will find is Carlos Herrera's Exhibit C. And this was the transcript in which you heard Mr. Cordova testify that, when Mr. Chavez says, "Over there doing bad, huh, " in reference to "Lazy, " Carlos Herrera, "doing bad" as in not high, as in sober. So you have that testimony. He was sober, was going to bed. Then you have Carlos Herrera's Exhibit A. Now, bearing the day -- this is one where I think was brought out how many UIs there are, how many unintelligibles. you heard unintelligible doesn't mean anything other

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than whoever is listening to that can't make out the word. In this first page we came up with, I think, one stutter.

Now, instead of reading the transcripts, I would invite the Court to listen to the recordings. We heard from Mr. Perez. We got his testimony up there. Some of the words, some of what he was saying was difficult to understand. You heard from Special Agent Acee that it's difficult to understand what these guys are saying -- excuse me, what these SNM members are saying in the prison. And in the recording it's difficult to say. That doesn't mean he's under the influence, as opposed to it's difficult to understand.

Now, we didn't benefit from getting to hear Mr. Herrera up there on the stand, and listen to whether we could understand him perfectly clearly.

All that we have from Mr. Herrera is an affidavit, an affidavit in which he didn't take the stand, submitted only this affidavit. If we look at this, Mr. Herrera says, during the time he was in there, "Billy Cordova was an inmate at PNM South, and was in a cell next to me." He goes on to say, "Prior to each of these conversations, Cordova would place strips of Suboxone under the door of my cell." So



again, we have in paragraph 2, the cell next to Mr. Herrera. In paragraph 6, Suboxone strips under the door. Except that when we heard about Mr. Cordova's knowledge of drugs in the prisons -- and I grant it was extensive -- he said that if someone was in the cell next door, he passed Suboxone strips through the vents. After he said that, you heard Mr. Perez get up on the stand and he testified under oath that Billy Cordova placed Suboxone in his cell through the vents, exactly as he heard Mr. Cordova say earlier.

This, in paragraph 6 of Mr. Herrera's affidavit, is contrary to that. Billy Cordova said if there was someone in the cell next to him, he would not give him Suboxone strips under the door. He would only do that if someone was down -- I think he said the freeway or the interstate, or whatever that was. If there were multiple cells in-between, they would fish them under the door. If they were next to each other, they went through the vents. So not only do we have only an affidavit, we have an affidavit that is inconsistent with two people's testimony.

Again, I think if we look at -- I know Ms. Fox-Young listed all of what I think the case law refers to as the circumstances of voluntary and





intelligent statement. Oftentimes, what we're 1 2 looking at is that statement in isolation, and we 3 don't benefit from the testimony that we've heard over these two days. We don't benefit from hearing 4 from the defendant himself. We don't benefit from 5 the defendant's testimony that he used, 6 7 intelligently, Mr. Cordova to spread rumors about 8 We don't hear from the person who recorded the conversation oftentimes. 9 10

So I would say, if the Court looks at the transcripts, the Court looks at the evidence over these last two days, the Court should find voluntary and intelligent statements.

So, finally, I think there was sort of a policy argument made at the end that, if we go down this road, you know, we're inviting future violations of this.

I would say the other side of that policy argument is just as strong. If this Court finds that, because these folks were in prison, their statements were, as a matter of law, not voluntary and intelligent, there can be no more recordings made of voluntary and intelligent confessions within the jail system. And in a system in which we have violent prison gangs, we have murders, assaults on a

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daily basis, that can't be a good policy to just say, 1 2 as a matter of law, we cannot send recorders in there to record voluntary and intelligent statements by 3 4 other prison inmates. I'll stand for questions, or else I'm done. 5 THE COURT: I don't believe I have any 6 7 questions. Thank you, Mr. Beck. Let me ask other defendants, before I hear 8 from Ms. Fox-Young and Ms. Bhalla, if they have any 9 10 final comments? Anybody else have anything they want 11 to say on these two motions? 12 All right. Ms. Fox-Young. You may 13 certainly say whatever you want to on your motion, or 14 the motions. What do you -- how do you respond to 15 Mr. Beck's pointing out that in Mr. Perez' testimony 16 he did seem to have a lot of details about the 17 murders? I think everybody would agree with that. Your story being that he had heard all that. 18 Government saying that is really not credible that he 19 20 knew all those details just from hearing other 21 people? Your thoughts on that? 22 MS. FOX-YOUNG: Yes, Your Honor. I'11 23 respond in a couple of ways. First of all, more than 24 a year-and-a-half after the statements were given, 25 Mr. Perez has had the benefit of months and months to



look at these statements, and to learn about this case. We all have in hearing after hearing. In February 2016, you know, things were different. So his testimony is retrospective. That's, I think, the first point.

Secondly, Judge, we're not arguing that Mr. Perez had no awareness of reality; that he couldn't hold a conversation; that he was so drugged and so infirm that he couldn't converse. And that's not the test. I think the Court has to go back to the law, and sort of a distraction to say, well, you know, Mr. Perez admitted that he was lying, or some statements were true, or some statements are corroborated in the discovery. None of that makes any difference. The Court has to look back at Fulminante and its progeny, and make the inquiry as to whether or not there was coercion under those cases. And it's a totality of the circumstances test. It's a combination of all of the factors that we have identified and that the Court has heard.

And so I think it's a bit of a distraction to go into -- remember Mr. Castellano asked Mr.

Perez: Don't you think it's interesting that some of this is corroborated, you know, and this is evidence that has come out in the case? It's completely



irrelevant. If the Court looks at Fulminante, there was no allegation there or no assertion there that Mr. Fulminante couldn't carry on a conversation, that he couldn't make conscious decisions. That's just simply not the test.

And so, yes, Your Honor, I mean, I think
Mr. Perez was pretty clear when he went through
statement by statement with the Government what he
knows now about what may or may not be true, what may
or may not have really happened. And he explained to
the Court, I think, very clearly and credibly that at
the time there was a bunch of stuff that had been put
in his mind by Billy Cordova. And that's what he was
fixating on. That's what he seized on in order to
protect himself. And that's where he had learned
some of those facts. He didn't know whether they
were true or not.

Again, I don't think it really goes to the Court's inquiry. I don't know if I've adequately answered the Court's question, or if I should move on to other points.

THE COURT: Go ahead.

MS. FOX-YOUNG: Okay. Additionally, you know, the Government responds on Billy Cordova's pressure points saying Billy Cordova was just using





coded language. He explained to the Court that that's what he meant by pressure points. What he explained to the Court was, essentially, he was capitalizing on Rudy Perez' fear. Mr. Cordova is a smart, manipulative, seasoned guy. And he said, They were going to move on him. I used that information. I knew that Rudy knew it, I knew it, everybody knew it, that he was thought to be cooperating. That was a pressure point that I used in order to extract information to get him to talk to me, to get what I needed to get benefits from the Government.

And I -- I think his language was the most instructive that the Court has heard, when he talked about those pressure points, what he used as a Government agent to get Rudy to talk.

Moving to the fact that Mr. Perez was held in Level 6, without justification, according to policy or even reason, I'd like to show the Court one exhibit that came into evidence last week, and note that, you know, the Government could have put on testimony. It's their burden. They could have put on testimony or evidence to explain why Mr. Perez was held. But it doesn't exist. There is no rational, reasonable explanation pursuant to policy for why Mr. Perez was there.



What I want to show the Court -- I'm not sure where this exhibit is, but it's the email that Mr. Roark testified about, that was forwarded by Wendy Perez, a year after Mr. Roark sent it. Mr. Roark's emails was to all the wardens, and it said, we've got to do these routine audits in order to make sure that people are doing their proper disciplinary time. Ms. Perez, who the Government could have put on today to rebut these allegations and to meet their burden, then sends that email along to the Warden, and says, "Call me about this." Subject line: Rudy Perez.

I think it clearly shows a year later, more than a year after Mr. Roark testified that they closed the books on the Molina investigation, and things had returned back to normal with the SNM, they are looking for reasons to hold Rudy Perez in Level 6. And, you know, to the Government's argument that Mr. Cordova just appears, he just sprouts in Level 6 one day, he just shows up there. Special Agent Acee had nothing to do with it. The New Mexico Corrections Department had nothing to do with it. You know, sort of borders on the absurd. Of course, they had something to do with it. Of course, he shows up there just days after Special Agent Acee



opens him as an informant. And he's there for a specific reason. Mr. Perez and Mr. Herrera are there for specific reasons.

The entire SNM was not held there at that time, and the Court heard it had been many months since those guys were shipped to Level 6. They were targeting these two potential defendants. They wanted to extract statements from them, and that's why they came up, Judge, with a reason to hold them. And let me just briefly draw the Court's attention to RP-H, which Mr. Roark testified that he did send this email, February 11, 2015, to all the wardens about these routine audits that were to be done.

Wendy Perez -- the Court can see, Wendy

Perez finds that email a year later, changes the

subject line, and forwards it to Roland Mares, who I

believe is the Warden, and then to German Franco, who

actually I think is the Warden, and says, "Call me on

this, so I can explain, please."

What subsequently happens is that the Corrections Department finds a ruse, a reason to hold Rudy Perez in Level 6. And Mr. Roark testified there was no credible threat according to their policy that existed in February 2016. There was no paperwork documenting a reason, a proper reason, to hold Mr.

Perez there. Nothing at all. And it's the
Government's burden. They have not put on any
testimony to explain why Mr. Perez was there, except
Billy Cordova and Special Agent Acee and Mr. Roark
saying, Yeah, he was there at the same time. It was
right after Mr. Cordova was opened as an informant.
Mr. Cordova just ends up next to him.

I mean, it just defies reason that this just magically happened. It absolutely was known and engineered. The Court doesn't have to disbelieve Special Agent Acee. I think it's reasonable to conclude that Special Agent Acee was forthright with the Court in saying he didn't know exactly where Mr. Cordova would be placed and when. But it was the Corrections Department, working with the FBI, working with this Government agent, CI, to extract statements from Mr. Perez that matter. So the Court doesn't have to disbelieve Special Agent Acee. And the Court certainly doesn't have to disbelieve Mr. Roark when he says, Yes, Mr. Perez was held in Level 6. It was essentially contrary to policy. You know, I can't give you an explanation as to why he was there. know, Mr. Cordova just showed up next to him. can't explain this. The Government has not given the Court any other reason except for this sort of

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amorphous testimony, yes, there was no credible threat. You know, he was SNM, so we believe we can hold him there. I mean, I think the Court can believe all that and take it all into consideration.

And it clearly fits well within our arguments that Mr. Perez was held there improperly, and specifically for the purpose of extracting statements.

Again, Your Honor, it's just the Government's burden to prove that these statements weren't coercive. And I don't think that they've given the Court anything to go on as far as a theory that this just appeared magically.

With regard to the Suboxone, I think Mr.

Cordova's testimony was very clear as to how Suboxone could be fished from one cell to the next. I think there are multiple ways that can be done. The Court heard from Mr. Perez as to how he received it and took it.

And I think, clearly, the Government falls short of meeting the standard to show that these statements were constitutionally taken. When you look at the relevant circumstances, the characteristics of Mr. Perez, the details of how these statements were extracted, where he was placed, and what he was up against, there is no question but

that the Court should suppress them.

THE COURT: All right. Thank you, Ms.

3 Fox-Young.

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Ms. Bhalla, I'll give you the last word on these two motions.

MS. BHALLA: Thank you, Your Honor. I just want to address a couple of points.

Mr. Perez, at the time that Mr. Cordova was placed next to Mr. Perez, was in a different facility than when he was placed next to Mr. Herrera. And while their conditions of confinement were similar, their housing situation was different. And I think that explains the different methods for getting drugs into the cell. It's going to be different depending on where they are. But what is consistent is that Mr. Cordova was providing drugs.

I don't think that the Court has to find that Special Agent Acee lied about his knowledge about placement. He could walk away from that decision. This was a joint investigation. NMDOC was working with the feds. All that Special Agent Acee had to do was tell them, "I want Cordova next to these guys. You guys make it happen." And whatever methods they employ to do that are attributable to the Government, whether or not Special Agent Acee

approved it.

In terms of the transcripts, the -- I'm sorry, I don't have the exhibit number in front of me, Your Honor -- but the exhibit that we talked about where Mr. Cordova was discussing prices for the drugs that he could get, the Government alleges that these were the prices for street drugs. Mr. Cordova testified he'd been in custody for 13 months at that point, and he was able to get a better price than Mr. Chavez. And that was the discussion. And Mr. Chavez specifically says: You can still get them for five, right? Yeah.

Now, when they say Mr. Herrera was going through withdrawals and not high, it's interesting that's their argument now. Because in their briefing their argument was that it was bedtime, and they were all sleepy. And I think that's an interesting thing that the argument is changing depending upon what Mr. Cordova has been telling them. And I would ask the Court to look at the briefing and compare it to the argument today that he was withdrawing rather than he was sleepy.

So that's all I have to finish up, Your Honor. Unless the Court has any questions.

THE COURT: I don't believe so. Thank you,





Ms. Bhalla.

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MS. BHALLA: Thank you, Your Honor.

THE COURT: Well, let me say with this motion, since a lot of effort has been put into it, I would be glad to take it under review and advisement. Y'all have pointed out today a number of things that you would like me to review, and issue an opinion with detailed findings of fact and conclusions of law, if that's what you'd like for me to do. As we've been going through the hearings -- and I'll probably do it every day, and at the conclusion of each hearing, or set of hearings, try to determine what you'd like for me to work on, and take a special look, and this may be one of them.

But I am going to give a ruling this morning that will be the ruling for trial, unless -- and these will constitute my findings of fact, unless this is one of the sets of motions that the parties would like for me to spend more time on between now and trial.

Let me first talk -- there has been an invitation by both sides that I be careful about how my rulings might impact upon other prison investigations. I think I got my hands full here in determining what I should do with this evidence.

Certainly, I'm always aware of the impact that my rulings may have on future investigations or other cases. But I'm also mindful I'm a district judge, and my rulings have only impact on the trial I'm about to have. And so I will probably not get too wrapped up in trying to figure out what the impact will be on future prison investigations.

Let me start by indicating on this the prison placement. I do think that to go the direction that the defendants want me to go in this case does require me to probably find that Mr. Acee and Mr. Roark were not credible in certain of their testimony. I know Ms. Fox-Young has offered ways of getting there that do not put their testimony in doubt. But I do think that, in the end, it would.

And I find Mr. Acee credible that he did not have any role in placing Mr. Herrera and Mr. Perez, and that the Corrections Department did that. Mr. Roark seems to corroborate that, in the sense that why they were where they were was because of the Molina homicide, and that was the reason for the lockdown. So I don't find the placement issue really helps the defendants much on the coercion and the voluntariness issue, which is what this motion is about -- these two motions are about. I don't see



information on the placement side that really undercuts what Mr. Acee and Mr. Roark, rather straightforwardly testified about, about how they got where they are. Certainly, Mr. Acee was involved in putting Mr. Cordova next to the cells of Mr. Herrera and Mr. Perez. But I don't think he had any involvement in where those two defendants were placed. And I think Mr. Roark's testimony supports that.

I guess y'all may have -- I may be the only one in the room that really didn't know what Mr. Cordova was going to look like. Somebody else probably had some knowledge. And I am probably the most ignorant there, so I was curious as to what he would look like, how he would testify, and what that testimony would present. I did think that Mr. Cordova was a very good witness, and found him to be credible in all material respects. I don't think he promised Mr. Perez, Mr. Herrera anything. I think by pressure points, I do agree with Mr. Beck's assessment that you don't just walk in to one of these facilities and start asking people: What was your role in the killing of Molina. You have to talk in coded language. And Mr. Cordova was trying to figure out how he could get the testimony from Mr.



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Herrera and Mr. Perez that he needed to do his job. 1 2 I don't think that I find him credible in that he did not provide Suboxone. And so I find that -- I will 3 4 credit in my findings of fact in all material respects his testimony where it differs from Mr. Herrera and Mr. Perez.

In contrast to Mr. Cordova, I found that much of Mr. Perez' testimony was incoherent and hard to follow, and difficult to come up with a structured response to what Mr. Cordova's rather straightforward Either he's lying here on the stand, or story was. There may have been times he lied he was lying then. But in the end, I can't put together a credible enough and coherent enough story to find his testimony credible here in the courtroom.

I think Mr. Perez is intelligent. I think was intelligent at the time. I've reviewed enough of these transcripts to find him intelligent at the time. His testimony that he knew he could use Mr. Cordova to spread the rumor or tale or story that he was not a rat, I think, undercuts his argument now that his statements then were involuntary. find any considerable mental defect or incapacity. He may have some health problems, may use some drugs. But it doesn't seem that there is any evidence that

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the Government knew those things, or more

importantly, knew those things and tried to take
advantage of it. His statements appear, both at the
time that he gave them and his testimony here in the
courtroom, are that his statements were voluntary and
intelligent. He knew details of the murder. And I
certainly don't find these beyond a reasonable doubt,
that's a function for the jury. This is just for
purposes of the suppression motion. But I don't find
credible that he only knew those things because they
were told him. I will find that more likely than
not, he knew those details because he was involved in
the murder of Mr. Molina. I don't think that there
is sufficient evidence that he was under drugs or was
incapable of making the statements voluntarily and
intelligently.
I find the same with Mr. Herrera because of
the persuasive testimony of Mr. Cordova.
So I will deny the motion to suppress
involuntary statements 1294 and motion to suppress
statement 1295.
I understand that the next thing we were



hearing as to the gun. I believe this is Mr. Chavez'

motion on the gun -- Chavez' testimony. I'm not sure

going to go to was a resumption of the Daubert

1 I can read my notes here, but is that where we're 2 going next, is the Daubert hearing? 3 MR. ADAMS: Yes, sir, I believe so. 4 Mr. Garcia had filed a Daubert challenge to the gun 5 that was seized from his home, and Mr. Chavez was 6 noticed as the expert. 7 THE COURT: Okay. And y'all will have to refresh me where we were on that. I know we got --8 9 MR. ADAMS: We have not started that, Your 10 Honor. 11 THE COURT: We've not started that. 12 So is the Government going to take the lead 13 on this motion? 14 MR. CASTELLANO: Yes, Your Honor. 15 calling Theodore Chavez. Just to clarify, this is not a firearm seized from Mr. Garcia's home. 16 It was 17 turned over as part of an undercover operation. 18 MR. ADAMS: I accept that friendly 19 amendment. That's correct. 20 THE COURT: All right. Mr. Castellano, you 21 have witnesses or evidence you wish to present on 22 this motion? 23 MR. CASTELLANO: Yes, Your Honor. 24 United States calls Theodore Chavez. 25 THE COURT: Mr. Chavez, if you'll come up



1 and stand next to the witness box on my right, your 2 Before you're seated, Ms. Standridge, my 3 courtroom deputy, will swear you in. 4 THEODORE CHAVEZ, 5 after having been first duly sworn under oath, was questioned and testified as follows: 6 7 DIRECT EXAMINATION THE CLERK: Please be seated, and the state 8 9 your name for the record. 10 THE WITNESS: First name is Theodore, and 11 the last name is Chavez. 12 THE COURT: Mr. Chavez. Mr. Castellano. 13 MR. CASTELLANO: Thank you, Your Honor. 14 BY MR. CASTELLANO: 15 Good morning, Mr. Chavez. Q. 16 Α. Good morning. 17 Where are you currently employed? Ο. I'm currently employed by the Federal 18 Α. 19 Bureau of Investigation Laboratory, located in 20 Quantico, Virginia. What are your duties at the laboratory? 21 Q. 22 Α. My primary duties as physical scientist 23 forensic examiner, is to receive evidence relating to firearms and tool marks, conduct examination on those 24 25 requested items, provide examination results, and



issue a laboratory report, and then provide testimony to those results in a court of law.

- Q. Can you tell us a little bit about your educational background?
- A. I received a bachelor's in physics from St. Vincent College, located in Latrobe, Pennsylvania.
- Q. And what other types of training and experience do you have?
- A. Upon entering employment there at the FBI Lab, I entered what approximately would be a three-year training program, in order to become qualified within the firearms and tool marks unit. That just allowed for me to receive a training manual that outlined the training progress throughout those years, whether it be sign-offs by a qualified examiner, or also sort of a mentorship, conducting casework alongside those other qualified managers.
 - O. What is firearms identification?
- A. Firearms identification can be defined as the comparison between bullets, cartridge cases, other ammunition components, to determine if they were produced by a specific firearm.
- Q. And what makes firearms identification possible?
 - A. Firearms identification is possible due to



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the manufacturing of these items, whether it's a barrel of a firearm, or a slide from a firearm. It's these manufacturing processes that leave individual characteristics or microscopic marks that are used for identification.

- Q. You told us a little bit about your training earlier. Who conducted that training?
- A. When I received the training manual, there is a training program manager for the unit. And I was assigned to a training coordinator. The training coordinator who overlooked my training was Eric Smith.
- Q. And as part of your duties, have you been involved with the training and/or instructing of others?
 - A. Since qualification, yes.
 - Q. What types of training have you provided?
- A. So the FBI has an Evidence Response Team, or ERTs, throughout different field offices. And in order to become a member of the ERT, they will go to what's described as a basic class. And it's hosted there in Virginia at the Operational Response Center. And part of their one-week, if not two-week training, they learn the different types of examinations that my unit performs, as well as understanding the type



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of evidence handling that is necessary to preserve those items that are submitted to the lab.

- Q. Are you a member of any professional associations?
 - A. I am.
 - Q. Can you tell us about that?
- A. I am a regular member of AFTE, the
 Association of Firearms and Tool Mark Examiners. And
 that is just a professional organization; it has
 various firearms and tool mark examiners within the
 U.S., as well as international.
 - Q. Any other professional associations?
- 13 | A. No.

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- Q. Were you required to pass any standardized tests to become qualified for your post?
- A. Yes. So upon qualification, I would have had to have completed a total of three oral boards and three moot courts. Those were all handled by qualified examiners within the unit, as well as outside evaluators. Upon completing those tasks or those outlines within the training manual, I was then qualified as a firearms and tool mark examiner, able to complete casework independently.
- Q. And was it those people who determined that you were qualified to reach your conclusions?



A. That is correct.

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- Q. Is your work peer-reviewed?
- A. Yes. There are two types of reviews: A technical, as well as an administrative review.
 - O. And how does the peer review work?
- A. A technical review will be conducted on any supporting documentation, to include a laboratory report that is issued, or prior to issuance. The technical review is handled by another qualified examiner within the same category of testing. So they will review all supporting documentation to ensure that it supports outlined results.

And the second type of review is administrative review. That is handled by typically a supervisor in my case, my unit chief. And so she just ensures that the contributor is receiving a sound laboratory report, as well as all administrative tasks are completed to have that report issued.

- Q. And is this regularly done as part of your responsibilities and the conclusions that you reach?
 - A. That is correct.
 - Q. Do you work in the accredited laboratory?
- A. Yes, I do. The FBI lab is accredited by ASCLD Lab, or the American Society of Crime

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Laboratory Directors, Laboratory Accreditation Board.

- Q. How did they accredit your laboratory?
- A. Typically, a reaccreditation occurs every five years. So throughout the five-year window, there are surveillance visits that occur. I handle the quality assurance program for my unit, so I have working knowledge of all the internal audits that are conducted yearly, as well as a review of the documents, and actual participation in those surveillance visits by outside assessors.
 - Q. Do you have established protocols for conducting examinations?
 - A. Yes, we do.

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- O. Who established those protocols?
- A. A protocol, if it's an existing protocol, will go through an annual review. The annual review is done just to ensure that the business practices that are being handled within the unit are functioning under this SOP. It will go through a technical review if it's a new document. And the document would then be reviewed by our technical leader. And upon review by the unit, it then will be reviewed by FASU, the Forensic Analysis Support Unit. And they will just ensure that it's in line with the accreditation requirements that are observed by the

laboratory.

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- Q. As part of your responsibilities did you receive a Phoenix Arms pistol, serial number 4208834, at the laboratory?
 - A. That's correct.
- Q. For what purpose did you receive this firearm?
- A. In this case, the firearm was submitted for a function test. Because it is also a pistol, I searched a national database search. So the report that I issued would have contained a function test, as well as national database searches.
- Q. Let's start with the database searches first. What is the purpose of those searches?
- A. So there are three different types of database searches, all handled by the DOJ: There is NCIC, the National Crime Information Center; eTrace, which is the electronic tracing system; and NIBIN, which is the National Integrated Ballistic Information Network. NCIC is a stolen gun record database that can be searched by anyone who has an NCIC account; eTrace is information that is also collected either by a purchaser, or upon distribution by a manufacturer, basically just gives a historical timeline of that firearm; NIBIN is a database that



allows for cartridge cases to be searched against each other. So it's acquisition, as well as a correlation.

- Q. So, in this case, can you tell us about the results of each of those database searches?
- A. So the NCIC have no records, which indicated it was not stolen. The eTrace did have an existing trace number. So that trace number or the trace may have actually been conducted by the field office. And that's -- one of the policies we have currently in place, as part of the field evidence policy, is that anyone in the field offices who prior to sending it to the lab will have conducted that trace. And the NIBIN result was also no associations at the time.
- Q. After the NIBIN search, is that something that tells you -- for example, you have a crime scene with unknown cartridges; are those put in the system for a possible match for future crimes, so you can match them up?
- A. That's correct. The NIBIN will contain cartridge cases that have no associated known firearm.
- Q. Okay. Now, tell us about the function test, please.





1	A. So I would receive the firearm in the unit
2	and be conducting sort of a general population of
3	make, model, caliber, different features of that
4	firearm, to include the serial number, the overall
5	length of the firearm, as well as preparing it for
6	function testing. So at the laboratory we have a
7	water tank not much longer than the witness stand
8	here, that is filled with water. And what we'll
9	actually do is take the firearm, and we'll test fire
10	it into a water tank. In this case I tested it
11	twice. So I first loaded a round into the chamber,
12	as well as it was noted that no magazine was
13	submitted with this firearm. So I used the reference
14	firearms collection, which the FTU also maintains,
15	Firearms and Tool Marks Unit maintains, and that
16	contains over 7,000 different types of firearms. So
17	I was able to use a magazine that had the same
18	functionality allowed for it to work with the pistol;
19	test fired into the tank two times, and collected
20	those known bullets, as well as known cartridge
21	cases. The cartridge cases would then be entered
22	into NIBIN, and the bullets be used for additional
23	information collecting the GRCs, or the general
24	rifling characteristics of that barrel.

Q.

25



Each time you fired the weapon -- you

mentioned first by putting a round in the chamber, 1 2 and then using a magazine to feed ammunition through 3 the firearm. On each occasion, did the firearm 4 function as designed? Yes, it did. 5 Α. Do you recall what caliber this firearm 6 7 used? This was a .22 long rifle caliber. 8 For those who don't understand firearms or 9 Ο. 10 ammunition, the fact that it's called a .22 long 11 rifle, does that mean it's only used for rifles or 12 can it also be used for pistols? 13 Α. There are manufacturers that have both 14 pistols and rifles calibered for a .22 long rifle. 15 Q. In other words, can you fire a .22 long 16 rifle ammunition through this pistol? 17 Α. That's correct. 18 MR. CASTELLANO: May I have a moment, Your 19 Honor? 20 THE COURT: You may. Thank you, Your Honor. 21 MR. CASTELLANO: 22 pass the witness. 23 THE COURT: Thank you, Mr. Castellano. 24 Any defendant before Mr. Adams have any 25 cross-examination of Mr. Chavez?





1	All right. Mr. Adams.
2	Let me put on the record. Ms. Fox-Young
3	asked that we indicate that Rochelle Marin from Mr.
4	Villa's office is also on the phone. Is there anyone
5	else that's come on the phone since we started the
6	hearing that hasn't entered an appearance? Make sure
7	your mute button is not on if you're about to speak.
8	All right. Mr. Adams.
9	MR. JEWKES: May I approach?
10	THE COURT: You may.
11	MR. JEWKES: Our client, Daniel Sanchez,
12	was taken out of the courtroom by the Marshal
13	Service. He's very ill. And there is a question as
14	to whether or not they should return him to the
15	courtroom. Mr the marshal whose name escapes me,
16	he goes by the name of Mick.
17	THE COURT: It's Mick.
18	MR. JEWKES: He was just telling me the
19	situation. So we wanted to put on the record that
20	Mr. Sanchez is not in the courtroom due to illness.
21	THE COURT: What kind of illness does he
22	have, Mick?
23	MR. MICKENDROW: He is throwing up, Your
24	Honor. My concern is just having him stay here all
25	day and being uncomfortable. Unfortunately, the



Marshal Service is unable to provide any medication 1 2 whatsoever, due to our policies. And at least, if 3 he's returned to the facility, they might be able to 4 provide him something in which he'd be a bit more comfortable. 5 THE COURT: Well, let's do this: 6 7 take our morning break. Let's see if we can give him 8 some fluids or something like that, and get him sitting back in here. I'd rather the marshals not 9 make that decision. I'd rather -- hold on, hold on. 10 11 Everybody be quiet. I'd rather the marshal not make 12 that decision whether he's in or out. If he can't do 13 it, or something like that, that's a different 14 question. But maybe we could reposition him or 15 something like that, if it's something we're 16 concerned about being contagious or something. 17 let's see if we can get some fluids in him, let him use the restroom a little bit and then maybe we can 18 19 resume. 20 MR. MICKENDROW: Understood, Your Honor. All right. We'll be in recess 21 THE COURT: 22 about 15 minutes. 23 (The Court stood in recess.) 24 THE COURT: All right. We'll go back on 25 the record. I think everybody has got a lawyer, at



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     least one. Look around, make sure your co-defendant
 2
     has a lawyer.
 3
               All right. Mr. Sanchez, are you doing
 4
     okay?
 5
                               I'm good, Your Honor.
               THE DEFENDANT:
 6
     Thank you.
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               THE COURT:
                           All right. Raise your hand if
 8
     you run into any problems.
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               All right. Mr. Adams, you wanted to
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     discuss marking some exhibits?
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                           Yes, sir. I have two.
               MR. ADAMS:
12
                           What I'd like to do, if this is
               THE COURT:
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     all right with you, since we're going into a new
14
     hearing, let's go ahead and mark these as Christopher
15
     Garcia Exhibits A and B.
16
               MR. ADAMS: Yes, sir.
17
               MS. SIRIGNANO: Your Honor, one second,
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     please, because we've got A and B for the DNA
19
     hearing.
               So --
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               THE COURT: I know, but if we're starting a
     new hearing, I want to have the exhibits running for
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     the hearings rather than just running forever.
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               MS. SIRIGNANO:
                               Okay.
                                      Thank you, Your
24
     Honor.
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               MR. CASTELLANO: Judge, I don't have any
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1	objection to marking those as C and D, Your Honor, if
2	they anticipate an A and B. Whatever the Court wants
3	to do.
4	THE COURT: I think this is going to be A
5	and B, right, Mr. Adams?
6	MR. ADAMS: Yes, Your Honor.
7	MR. CASTELLANO: Your Honor, and Mr. Adams
8	showed me these exhibits during the break. And I
9	have no objection to admission of either one.
10	THE COURT: All right. Anybody else got an
11	objection to these two exhibits? Not hearing any,
12	Christopher Garcia's Exhibits A and B will be
13	admitted into evidence.
14	MR. ADAMS: Thank you, Your Honor.
15	THE COURT: Mr. Adams.
16	EXAMINATION
17	BY MR. ADAMS:
18	Q. Mr. Chavez, let me show you and your
19	screen should be on Christopher Garcia Exhibit A.
20	Is this the gun that you examined?
21	A. That is correct.
22	Q. And the serial number on that is 4208834?
23	A. That is correct.

Q.

Α.

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I received the gun prior to 8/25/2016.

When did you receive the gun?

- Q. And when did you return the gun?
- A. Within a day after 9/22/2016. And if I may indicate where I am -- the green arrow there shows 8/25. So that would indicate when the examination started. So we could have received the firearm prior to that. Back down to 9/22, that's the date that indicates when I completed my exams. So the firearm would have been returned after 9/22.
 - Q. And so the record is clear, those dates are found on Defendant's Exhibit A that's in front of you on the screen now?
 - A. That's correct.

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- Q. And is this part of your worksheet that you completed?
 - A. Yes, this is page 1 of 4 of the examination results that would support my laboratory report.
 - Q. Let me show you Exhibit B. This is a chain of custody form. Are you on the chain of custody form?
 - A. I do not recognize this chain of custody form for one reason. This could be a field chain of custody, that being any transactions that are made outside the laboratory, the FBI Laboratory, will have their own chain of custody.
 - Q. And has that been provided with your lab



notes, do you know?

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- A. The case 1A should have been provided during discovery requests.
 - Q. So you don't know anything about this Exhibit B, and your name is not on it?
 - A. My name does not appear. However, I do see indications of FBI Laboratory stamped on there, that shows the reasons analysis. But that could have been Joseph -- what I believe is Joseph -- that name looks familiar, as a case agent.
- Q. Sainato?
- A. Sainato -- possibly transferring it to the lab, which means out of his custody. But again, I'm not familiar with it, and my name does not appear on this chain of custody.
 - Q. So your sole determination or primary determination is that the was gun was operable when it arrived to you in the laboratory?
 - A. As received, correct.
 - Q. Do you know what condition the gun would have been in when it was seized and taken into custody by the FBI?
 - A. I don't.
 - Q. Do you know whether the gun had been manipulated at all by any case agent or other FBI

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person before it got released to the FBI laboratory?

- A. The only policy that was currently in place is that the firearm must be rendered safe, and that is just to allow for it to be packaged accordingly, and shipped under regulations by, I believe, Fed Ex.
- Q. Would it be against policy for an agent to take a nonoperational gun, and to mess with it, fix it, so that it would fire before sending it to the lab for analysis?
 - A. I'm unaware of any type of policy.
- Q. One way or another?

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- A. No. The only policy that currently is in place, again, is to ensure that it is rendered safe. If a firearm were to be submitted as inoperable, there is an examination conducted by my unit that would outline on that same worksheet what was not operating. And we would attempt to correct or at least use some of the components to make it functional. But in this case, that did not exist.
 - Q. Why would you do that?
- 21 A. To collect known test fires. So in order 22 to enter those into the database.
 - Q. And again, for your database information, the eTrace didn't produce any -- the eTrace and the NCIC, and what was the third one?





- A. ETrace had no record -- excuse me, NCIC had no records; eTrace had a preexisting trace number, meaning someone from the field had already requested the information of that pistol. NIBIN came back as no associations.
- Q. All right. When had that information been requested on eTrace? Was it related to this investigation, or did it predate?
 - A. May I see Government's Exhibit A again?
- Q. I have all four pages.

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- A. If you could display it, possibly. So what the arrow is indicating is a trace number. So for me, that indicates for eTrace, that line there, previously traced. I have access to the trace number, but I don't know when that occurred, only that it was during the year 2015.
- Q. All right. Can you find out when that request was made?
- A. Yes, I can.
- Q. Can we ask you to provide that to the prosecution so they can let us know? Or I'm happy to email you.
 - A. I can provide that information.
- MR. ADAMS: All right. Thank you. I don't have any further questions.

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THE COURT: Thank you, Mr. Adams.

I think I already asked this, but anybody

3 else got any questions of Mr. Chavez on the defense

4 side?

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5 All right. Mr. Castellano, if you have

6 redirect of Mr. Chavez.

MR. CASTELLANO: Thank you, Your Honor.

REDIRECT EXAMINATION

BY MR. CASTELLANO:

- Q. Mr. Chavez, in terms of chain of custody,
- 11 | did someone else at the laboratory have custody of
- 12 | this firearm prior to your examination?
- 13 A. Yes, they did.
- Q. What was that purpose?
- 15 A. The purpose is just the type of examination
- 16 | that is being requested. There are some examinations
- 17 | that would take precedence, like DNA or latents, that
- 18 | would precede our handling of the firearm, to include
- 19 this is a multiunit submission, meaning that there is
- 20 | a person doing both intake, as well as preparing it
- 21 | for shipment. So there is a request coordinator on
- 22 this submission. And it serves multiunits, so DNA,
- 23 | latents, and firearms. So I would only be a part of
- 24 that chain of custody, full chain of custody. The
- 25 RC, or anyone assisting the RC in packaging, or



accepting the firearm at the laboratory, would be the 1 2 main point of contact for being the first one on the chain, or the last one on the chain. 3 4 Ο. Were you aware of whether DNA testing occurred before the time you handled the firearm? 5 Yes, it did occur. 6 Α. 7 MR. CASTELLANO: No further questions, Your 8 Honor. THE COURT: All right. Thank you, Mr. 9 10 Castellano. 11 MR. ADAMS: No follow-up. 12 THE COURT: All right. Mr. Chavez, you may 13 step down. Thank you for your testimony. 14 Mr. Chavez be excused from the proceedings, Mr. 15 Castellano? 16 MR. CASTELLANO: Yes, Your Honor. 17 THE COURT: Mr. Adams? MR. ADAMS: Yes, sir. And if we could get 18 19 that extra follow-up information sooner rather than 20 later, it would be very helpful. Thank you. All right. Any other defendant 21 THE COURT: 22 have any objection to Mr. Chavez being excused? All 23 right. You're excused from our proceedings. 24 you for your testimony, Mr. Chavez. 25 All right. Mr. Castellano, does the



Government have further witnesses or evidence -- Ms. 1 2 Armijo, on this motion? 3 MS. ARMIJO: Yes, we have Tiffany Smith. 4 MS. SIRIGNANO: Your Honor, can I clarify? Is Ms. Smith being called for the firearm or for DNA? 5 THE COURT: I think we're on the firearm 6 7 motion right at the moment; correct? 8 MS. ARMIJO: Well, I assumed we were still 9 just doing Daubert, in general. She is doing DNA on the firearm, but it is DNA. 10 11 THE COURT: All right. 12 MS. ARMIJO: So, I guess, I don't believe 13 we have anything more as far as testimony from 14 ballistics on the firearm. 15 THE COURT: All right. Is this still, 16 though, related to one motion, Ms. Sirignano, or is 17 it two separate motions? MS. ARMIJO: I believe it's one motion that 18 19 they filed challenging all of our Daubert. 20 don't know how the defense would want to handle it. MS. SIRIGNANO: Your Honor, the notice that 21 22 the Government filed, Document 1242, included expert 23 witness testimony of Mr. Chavez and Ms. Smith. our Daubert challenge was for both experts within 24 25 their amended notice of expert witness testimony.



THE COURT: Well, why don't, before we 1 2 bring in -- unless Ms. Smith is relevant to 3 Mr. Chavez, why don't we hold off on her and finish 4 up the Daubert hearing on Mr. Chavez. Do y'all have 5 any further witnesses or evidence, Mr. Castellano, on Chavez' Daubert hearing? 6 7 MR. CASTELLANO: No, Your Honor. 8 THE COURT: All right. Mr. Adams, do you 9 have -- do the defendants have any witnesses or 10 evidence it wishes to present on the Daubert challenge to Mr. Chavez? 11 12 MR. ADAMS: No, sir. And, Your Honor, our 13 concern had been that he would go farther than the 14 report. If that is the scope of his testimony, we 15 have no objection to that. 16 THE COURT: All right. Is that the 17 position of all the defendants on Mr. Chavez? So Mr. Chavez will be admitted -- will be 18 19 allowed to offer opinion testimony within the scope 20 of his report and testimony today. All right. Now, let's call Ms. Smith. 21 MS. ARMIJO: And, Your Honor, we're 22 23 starting fresh, correct? Do you want to start fresh for this? 24 25 THE COURT: Let's start fresh on Smith's



1 Daubert hearing. Let's take these individually. Ms. Smith, if you'll come up and stand next 2 3 to the witness box on my right, your left. Before 4 you're seated, my courtroom deputy, Ms. Standridge, 5 will swear you in. 6 TIFFANY SMITH, after having been first duly sworn under oath, 7 was questioned and testified as follows: 8 DIRECT EXAMINATION 9 10 THE CLERK: Please be seated. State your 11 name for the record. 12 My name is Tiffany Smith. THE WITNESS: THE COURT: Ms. Smith. Ms. Armijo. 13 14 MS. ARMIJO: Thank you, Your Honor. 15 BY MS. ARMIJO: 16 Ο. What is your current occupation? I'm a forensic examiner in the DNA Casework 17 18 Unit of the FBI Laboratory. 19 Ο. And what are your responsibilities as a forensic examiner with the FBI? 20 As a forensic examiner, it is my 21 22 responsibility to determine which items of evidence 23 require DNA testing. I will direct a team of 24 biologists to perform that testing in the laboratory. 25 I will review the data of that testing, perform any



necessary comparisons between items of evidence and known DNA samples taken directly from individuals. I will then report those comparisons in a report, and then testify if needed.

- Q. When did you start working for the FBI?
- A. August of 2010.

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- Q. And have you received any specialized training in the area of forensic DNA analysis since joining the FBI Laboratory?
- A. Yes. Once I was hired by the FBI
 Laboratory, I went through a year-and-a-half training
 program, where I worked alongside qualified forensic
 examiners, performing the same job duties as I
 currently perform; however, it was under their direct
 supervision. I worked on mock items of evidence in
 the laboratory. I wrote reports that were then
 reviewed. I took a series of moot court exercises
 and oral board examinations, and passed a competency
 test at the end of my training.
- Q. Now, please describe your work experience prior to joining the FBI.
- A. Prior to joining the FBI Laboratory, I was a graduate student at West Virginia University, where I worked in a forensic-based research laboratory for three years; that was through the university. I also



taught courses relating to, not only DNA, but also forensic DNA. And I also was an intern for a summer at the Connecticut State Forensic Laboratory, where I observed qualified examiners performing multiple job duties at that lab.

- Q. And what is your educational background?
- A. I have bachelor's of science degree in forensic and investigative sciences at West Virginia University. And I have a master's in biology degree also from West Virginia University.
 - Q. How do you stay current in your field?
- A. I stay current in my field by reading articles, attending training at the laboratory, and then sometimes outside laboratory. We receive talks by our DNA Support Unit, which provides us training as well.
- Q. And have you ever been qualified as an expert in the field of DNA testing before?
 - A. Yes, I have.
- Q. And can you tell us where and when, approximately.
 - A. I've testified approximately 31 or 32 times. Both in New Mexico, in Texas, Oklahoma, North Dakota, Florida, Maryland, Guam, U.S. Virgin Islands. I'm sure there are many others.

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1	Q. And have you been qualified as an expert				
2	you indicated in New Mexico, was that in federal				
3	court?				
4	A. Yes, it was.				
5	Q. And do you recall the names of the cases?				
6	A. I believe it was U.S. versus Thomas				
7	Rodella.				
8	MS. ARMIJO: All right. Now, Your Honor,				
9	we would ask that Ms. Smith be qualified as an expert				
10	in the field of DNA testing.				
11	THE COURT: Any objection to Ms. Smith				
12	offering opinion testimony in that area? Ms.				
13	Sirignano? Anyone else?				
14	MS. SIRIGNANO: No objections at this time,				
15	Your Honor.				
16	THE COURT: All right. Ms. Smith will be				
17	allowed to offer opinion testimony in the area of DNA				
18	testing.				
19	MS. ARMIJO: And, Your Honor, I also				
20	have I think without objection I'm moving in				
21	Exhibits 1, 2, and 3, which are Ms. Smith's CV and				
22	two lab reports in reference to her testimony today.				
23	THE COURT: Any objection, Ms. Sirignano?				
24	MS. SIRIGNANO: No, Your Honor.				
25	THE COURT: Anyone else?				



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All right. Government's Exhibits 1, 2, and 3 will be admitted for this Daubert hearing.

O. Ms. Smith, what is DNA?

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- A. DNA stands for deoxyribonucleic acid. And it is our hereditary material. We receive half our DNA from our mother and half from our father. And it controls not only what we look like, but also controls all the different chemical processes going on within the body.
 - O. And where is DNA found?
- A. DNA is found within our cells, and the cells are the building blocks that make up our body. We have skin cells, heart cells, muscle cells; males have sperm cells, and there is DNA in these cells.
 - Q. And does DNA vary from person to person?
- A. Yes, DNA is unique to a person, with the exception of identical twins. Over 99 percent of our DNA is the same, and that's what makes us human, it gives us two arms, a nose, a mouth. However, there is approximately 1 percent of our DNA that varies between individuals, which makes us unique.
- Q. And what kind of differences do you examine in DNA?
- A. For forensic purposes, I look at small regions of the DNA that are repeated back to back.



We call these STRs, or short tandem repeats. The number of repeats a person has differs versus another individual. So, for instance, it's similar to the way a train would work, where all trains have an engine and a caboose, but some trains are longer because they have more repeats, or more box cars.

And that's the same with DNA testing that I perform. Some individuals may have seven repeats, others may have 10, making them different at locations.

- Q. And how is DNA typing performed at the FBI?
- There is a series of steps that must be Α. done. The first is a collection, where we have to collect these cells off of an item of evidence, or from a known sample. And this is usually by cutting or swabbing an item. We then go through an extraction process where we're adding chemicals and heat to the item releasing DNA from those cells. then determine how much DNA we are able to obtain. We then run that through an amplification or copying That process will only copy the locations process. of the DNA that vary between individuals. We will then run it through an instrument, which will generate a DNA profile. I can then compare that DNA profile from an item of evidence to a DNA profile that was taken directly from a known person.



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- Q. And what are the possible conclusions of a DNA test?
- A. There are two main types of conclusions. The first is an exclusion, and that is when the DNA from an item of evidence is different than the DNA from a known individual, and therefore, we say that person is excluded as a possible contributor to that DNA.

The other major conclusion is a match. And that is when the DNA from an item of evidence is the same as the DNA from a known individual. Therefore, we say that person could be a possible contributor to that sample.

- Q. And how do you determine the significance of a DNA match?
- A. If we have a DNA match, we have to generate a statistic to show if it is a strong match or if the profile is common in the general population. What we calculate at the FBI Lab is something called a likelihood ratio. It's where we compare alternating hypotheses. The first is: What is the probability of that DNA evidence, given it originated from a certain person of interest. We compare that to the probability of the evidence, given that it originated from a random, unrelated, unknown individual. The



larger the number we get, the more support that the DNA originated a certain person of interest.

- Q. And is it possible to identify the source of the DNA?
- A. Yes. At the FBI laboratory, when we calculate that likelihood ratio, if the number we get is over 700 billion, then we attribute an individual as the source of the DNA.
 - O. And what is a mixture?
- A. A mixture is when you have DNA from more than one individual on an item. So, for instance, multiple people come in contact with an item, and they all are leaving their DNA on that item.
- Q. How does a mixture affect the possible conclusions from a DNA test?
- A. It doesn't. The conclusions are the same. You can still compare a person to a mixture, and you can still have an exclusion, meaning a person does not match any of the contributors within that mixture. Or you could also have a match in there, where you would still calculate a likelihood ratio.
- Q. And how do you know that the results of -- that you get are reliable?
- A. The biologist and examiners that are performing the training or doing the comparisons are



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both extensively trained. The laboratory itself is 1 2 an accredited laboratory, which means that an outside 3 body come in to the laboratory and reviews the standard operating procedures and policies, to ensure 4 5 that the results we are getting are reliable. The DNA unit is specifically also audited yearly, to 6 7 ensure that we're following quality assurance standards for forensic DNA testing laboratories. 8 we also run controls of each step of the process. 9

- Q. And do you follow protocol that has been set by the FBI?
 - A. Yes, we do.

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- Q. And is that protocol set by anybody else or just the FBI?
 - A. So the FBI has its own protocols and procedures. However, the basis of those procedures has been validated. It's also recommended by SWGDAM. There are other laboratories that are using similar protocols.
 - Q. Let's go on to this specific case. Did the FBI Laboratory receive evidence pertaining to your testimony today?
 - A. Yes, we did.
- Q. And I'm going to first refer, to assist
 you -- how many reports did you generate in reference

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to your testimony?

- A. Two in reference to this testimony.
- Q. Now, I'm going to show you first what's been marked as Government's Exhibit 2. Are you familiar with this item?
- A. Yes, I am. That is a copy of my report that was dated January 3rd of 2017.
- Q. And can you tell us, in general, what you first did in this case, as far as did you receive items to examine?
- A. The FBI Laboratory received multiple submissions in this case. When I was assigned to this case, I combined those submissions into one laboratory report. The items of evidence that came up to the DNA Casework Unit were inventoried by our case administrative group. I, then, reviewed the incoming paperwork, and I deemed what should be tested, and directed my biologist to perform that testing.
- Q. And does Government's Exhibit 2 list the items that you received in this case, which I believe go to exhibit or item number 54 on the second page; is that correct?
- A. These are the items that I tested in this case. We may have received more.





- Q. All right. And what was the first step in testing these items as far as your analysis?
- 3 It depends on the items. So, for instance, Α. 4 with the Phoenix Arms pistol and the canvas holster, 5 I directed my biologist to perform DNA testing on those items, which means they would take swabbings of 6 the items. My biologist swabbed the textured 7 portions of the Phoenix pistol. And separately they 8 also swabbed the outside fabric surface of the canvas 9 10 For the additional items, most of those holster. 11 items started with blood testing.
 - Q. Okay. So, specifically, and what we're here for today, are you referring to items number 3 and 4?
 - A. Yes, I am.

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- Q. And what was done with those items after the initial swabbing and examination?
 - A. They went through the routine process, where we collected the DNA, extracted the DNA, eventually amplified the DNA, and generated profiles. I then interpreted those profiles, and wrote this report. At that time, I did not have knowns to compare to these two items, so they were just reported out generally as mixtures of DNA.
 - Q. And specifically with items 3 and 4 -- and



1 I'm now looking at, I believe, page 3 of Exhibit 2.

Does that contain -- what were your results from item

- 3 | number 3 and item number 4?
- A. For item number 3, I did get a mixture of DNA, which again means that more than one person came
- 6 in contact with that item. And I also look at a sex
- 7 determining region, to tell whether the DNA came from
- 8 males or females. And in this case, it came from
- 9 both a mixture of male and female DNA.
- 10 Q. And what about for the swabbing from the
- 11 outside surface of the holster?
- 12 A. For the holster, again, it was a mixture of
- 13 DNA. And so, therefore, again, that means that more
- 14 than one person came in contact with that item.
- 15 However, from the sex typing results here, I detected
- 16 | male DNA.

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- Q. Now, you can't tell when a person left the
- 18 DNA on there, can you?
- 19 A. No, I cannot.
- 20 Q. So after you did the testing on this, did
- 21 | you then generate this report?
- 22 A. Yes, I did.
- 23 O. And, in fact, you indicate on items number
- 24 | 3 and 4 that the mixture is suitable for comparison
- 25 purposes; correct?



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- A. That is correct.
- Q. So what would you expect to get after listing that on the report?
- A. After that report, I was hoping to get potential known reference samples, which are known samples taken directly from a person, in order to do comparisons to those items.
 - Q. And did you get that in this case?
- A. I did, yes.

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- 10 Q. All right. Now, I'm going to show Exhibit
- 11 | 3. Are you familiar with this item?
- 12 A. I am, yes.
- Q. Tell us what we're looking at?
- 14 A. This is a buccal sample from Mr.
- 15 Christopher Garcia. And a buccal sample is a cheek
- 16 swab that is taken directly from a person. And we
- 17 | treat this as a known reference sample, meaning we
- 18 know where the DNA came from on this item.
- Q. And what you do with that sample? And I
- 20 | believe it's item number 58; is that correct?
- 21 A. That is correct. The same process was done
- 22 on item 58 as the previous items. We took a cutting
- 23 of the buccal sample. The biologist then performed
- 24 | the same extraction, quantification amplification
- 25 steps. Eventually, a profile was generated. I,



then, reviewed that profile, and I was able to compare that profile back to the Phoenix Arms pistol, in addition to the holster.

- Q. And what were your conclusions based on that?
- So for the Phoenix Arms pistol, I compared Α. the DNA profile from that pistol to Mr. Garcia. I did that comparison, I was not able to visually exclude him as a possible contributor. Therefore, when I interpreted this pistol, I interpreted the DNA as originating from four individuals. When I ran the statistic for Mr. Garcia, it was determined that the DNA typing results for the pistol were at least 28 times more likely to -- if they originated from Mr. Garcia and three unrelated, unknown individuals than if they originated from four unrelated, unknown So this provided moderate support that individuals. Mr. Garcia is a contributor to the DNA from the Phoenix Arms pistol.
 - Q. Now, in reference to the holster, did you get different results from the holster?
 - A. From the holster, I also interpreted that holster as originating from four individuals. From that holster, when I compared it to the DNA from the holster to Mr. Garcia, he again matched that profile.



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- When I calculated my likelihood ratio, it was over our threshold of 700 billion, so therefore, I was able to satisfy that Mr. Garcia is the source of one of the contributors on that holster.
- Q. Now, tell us a little bit about what you mean about it was greater than your -- what term did you use?
- A. We have a threshold. So when we calculate that likelihood ratio, as that number increases, the more support that a certain person of interest is included as a contributor. So once that likelihood ratio reaches 700 billion, we no longer report the likelihood ratio, we just state that an individual is the source of the DNA.
- Q. And do you know from your notes approximately what the ratio was?
- 17 A. I don't recall specifically. But I do 18 believe it was in the quadrillions.
 - Q. Quadrillions?
- 20 A. Yes.

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- Q. And as far as -- do you know approximately how many people there are on Planet Earth?
- A. There is approximately 7, 7 and a half billion people.
 - Q. There is obviously a difference in the



numbers between the holster and the firearm; is that correct?

A. That is correct, yes.

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- Q. Okay. And what sort of things could impact that?
- A. It depends on how much DNA is present. It depends on if Mr. Garcia is, in fact, a true contributor. If he is not, then the number would be expected, potentially, to be lower. It also depends on how many people handled a certain item, and in what order. So, for instance, if one person handled the item first, and then multiple people handled it later, that could potentially limit their ability. So it's really hard to say specifically. But there are a variety of reasons.
 - Q. Now, in general, with DNA, do you know how long DNA has been used in the scientific world for testing in forensics?
 - A. It's been used since the '80s. However, specifically, the type of testing we currently are using, the FBI has been doing it since 1999.
 - Q. And is it generally accepted in the scientific communities?
 - A. Yes, it is.
 - O. And does the FBI maintain the standards for





1 that type of testing, I should say? 2 Α. Yes, we do. 3 Ο. And is that part of your accreditation? 4 Α. Yes, it is. 5 MS. ARMIJO: May I have just a moment, Your 6 Honor? 7 THE COURT: You may. 8 Now, when you request a sample from a Ο. 9 person to make your matches, do you just use -- do 10 you use the swab from an arrest, or what is it 11 exactly that you use? 12 We are not allowed to use swabs from time 13 of arrest. Those are specifically collected for 14 entry into a database searching purposes. For direct 15 comparison to items of evidence, we do require a new 16 sample to be collected. 17 MS. ARMIJO: All right. Thank you. I'11 18 pass the witness, Your Honor. 19 THE COURT: Thank you, Ms. Armijo. 20 Ms. Sirignano, do you want to start? 21 MS. SIRIGNANO: Thank you, Your Honor. 22 THE COURT: Ms. Sirignano. 23 I'm going to need a minute, MS. SIRIGNANO: Your Honor. 24 25 THE COURT: Certainly.





1	MS. SIRIGNANO: Thank you, your Honor.				
2	With the Court's indulgence, I'm going to				
3	ask Ms. Torraco to vacate there, so we have a little				
4	more room.				
5	THE COURT: Are you agreeable with that,				
6	Ms. Torraco?				
7	MS. TORRACO: Yes, Your Honor.				
8	THE COURT: Thank you, Ms. Torraco.				
9	MS. SIRIGNANO: Your Honor, Ms. Gilbert is				
10	here at the podium with me because we're going to use				
11	Trial Director in this cross-examination.				
12	THE COURT: All right. Ms. Gilbert, good				
13	morning to you.				
14	MS. SIRIGNANO: Your Honor, may I approach?				
15	THE COURT: You may.				
16	EXAMINATION				
17	BY MS. SIRIGNANO:				
18	Q. Good morning, Ms. Smith.				
19	A. Good morning.				
20	Q. I'm handing you what's been marked CG-A and				
21	DNA on the bottom. Do you recognize that? It's				
22	approximately 317 pages.				
23	A. Yes, I do. It is a copy of my original				
24	case file for the first submission.				
25	Q. And when you say "the first submission,"				





- that would be items 3 and 4 that you just previously
 testified about?
- A. Correct. They're the first submissions for myself. It was, I believe, the third or fourth submission for the laboratory. But yes, that's what I'm referring to.
 - Q. And that would be the alleged gun and the holster in this case?
- 9 A. That is correct.

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- MS. SIRIGNANO: Your Honor, I'd like to move for admission of CG-A DNA at this time?
- 12 THE COURT: All right. CG-A. All right.
- 13 | Any objection, Ms. Armijo?
- MS. ARMIJO: No, Your Honor.
- THE COURT: Any objection from the other

 defendants? All right. Christopher Garcia's Exhibit
- 17 A will be admitted for this Daubert hearing.
- MS. SIRIGNANO: Thank you.
- Q. Ms. Smith, can you take a look at this exhibit, please? What is it?
- 21 A. This is the case file from my second 22 report.
 - Q. And so you recognize it as your case file?
- 24 A. Yes, I do.
- Q. And when you say the "second report," that



would be the report you did regarding Mr. Garcia's 1 2 buccal swab? 3

Α. That is correct.

Your Honor, at this time, MS. SIRIGNANO: I'd move admission of Mr. Garcia's CG-B DNA.

> Any objection, Ms. Armijo? THE COURT:

MS. ARMIJO: No, Your Honor.

THE COURT: From any other defendant?

Christopher Garcia's Exhibit B All right.

will be admitted into evidence for this Daubert 10 11 hearing.

12 Ms. Siriqnano.

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MS. SIRIGNANO: Thank you, Your Honor.

So Ms. Smith, I'm just going to talk a Ο. little bit about your background and your previous testimony about the two reports, Government's 1 and And you said that you have biologists that do the work for you; correct?

That is correct. The FBI laboratory has a team approach, where we have examiners that direct the testing and they oversee all the testing. decisions are made by the examiners. The comparisons and interpretations are made by the examiners. However, we do have biologists that perform the hands-on testing in the lab.

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- Q. And so what's part of your review?
- A. I review the biologists' notes, I review the profiles that were generated. I review the incoming paperwork of the items prior to them being tested at the laboratory. I review the entire case
 - Q. And that's what you have in front of you in Exhibits CG-A and CG-B DNA; correct?
- 9 A. That is correct. These are copies of my 10 case file.
- 11 Q. Which includes the biologists' reports as 12 well; correct?
- 13 A. That is correct, yes.
 - Q. And so in so much you review their work, you adopt their work as well?
 - A. I do. I'm in constant contact with the biologists. So, as they're performing testing, if they have any questions, they will come seek me out. If they have no questions, then I will just review their notes, make sure there are no issues, and then write my reports based off those.
 - Q. And you, yourself, do not do any instrument testing, or you did not do any instrument testing for these two reports, Government's Exhibits 1 and 2?
 - A. That is correct. The biologists would do



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- Q. And so what would happen if you found an error in one of the biologist's reports or notes? What's the process?
- A. It depends on what the type of error is.

 If the error is an administrative error, such as a spelling discrepancy, I would just correct the spelling discrepancy. If it is something that I cannot just correct, I will go seek out the biologists, have a conversation with them, and make any adjustments as needed. If there is an error affecting their work, then it would be brought up to a technical leader. And then the decision would be made from that point on from our quality program.
 - Q. So you would review a report first, and then, if there was an error, then it would go to a technical leader for review?
 - A. That's the normal process. It really just depends on the type of error. If it was an instrument error, we may just proceed with a new instrument. It really just depends on the specific situation. In this case, there was no noted error, so I don't have any of those issues in this case.
 - Q. Can you talk a little bit about your error rate with this particular program, STRmix?



- A. There is no documented error rate for STRmix, as we use it at the laboratory. The STRmix, if it has an error while running, we will re-run the program. But there is no calculated error rate.
- Q. And at times, when you re-run the sample, do you get different findings than the first run, when you read -- when -- a sample as an error?
- A. Yes, if there is an error, then it means the software will not complete properly. So when you re-run the software, you will get the correct value.
- Q. And how many times in your history with the FBI have you had to do that?
 - A. I can only think of one to two, maybe, instances. And that was because the DNA types that were seen were not separated fully because of how close in size they were. So STRmix was not able to handle that specific instance. So I ignored that location.
 - Q. You talked with Ms. Armijo on direct examination that the DNA unit has manuals and protocols and procedures; correct?
 - A. That is correct, yes.
- Q. Do you have any of those with you here today?
 - A. I do not have them with me, no. They were



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provided on a CD, on discovery. But I don't typically bring those with me on testimony.

- Q. So they were provided to the Government?
- A. Yes. So copies of my protocols that were relevant to the case as well as my case files are typically handed over on discovery, as part of our quality assurance program.
 - O. When was that handed over?
- A. I don't know specifically. Once we get a discovery request in, our normal process is to make copies of the case files, also provide copies of our protocols. Those are handed over to our legal department. And from my understanding, our legal department mailed them December 7, via an email I received. So I don't know specifically when they were received or anything like that.
 - Q. December 7th of 2016?
- 18 A. Of 2017.

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- Q. 2017. Was that last week?
- 20 A. Based on the email, I have, yes.
- 21 MS. SIRIGNANO: Your Honor, at this time,
- 22 I'd like to ask for the Government to turn over those
- 23 policies and procedures that were turned over by
- 24 Ms. Smith as part of the discovery process.
- THE COURT: Any response on that, Ms.



Armijo?

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MS. ARMIJO: Your Honor, I will check to see if they were disclosed yet. I know that I was handed today a CD that was sent on December 14 to Special Agent Nancy Stemo. But, in looking at it this morning, I didn't see policies and procedures, but I'll have to have somebody else go look at it. But it was sent to Nancy Stemo on the 14th. trying to figure out -- it is true the legal people said that they sent it to us on December 7th, which means that we, at least New Mexico, would have received it. I'm trying to track that down to see if that was disclosed or not. I believe what I have in my hand today is from a different examiner and different report. So I will be tracking that down, and certainly have no objection to turning it over, if it has not already been disclosed.

All right. Ms. Sirignano? THE COURT:

MS. SIRIGNANO: Your Honor, it has not already been disclosed. And the Government did know that we were having this hearing today. I did file, as the Court requested, over the weekend, a declaration from our expert, Janine Arvizu, regarding the need for the protocols and procedures in order to properly do an audit.





And I'm also getting a sworn declaration affidavit from Dr. Dan Krane, regarding -- he's a DNA expert in this case -- regarding the need to have those SOPs, policies and procedures, in order to discuss the extraction process, the quantitative results of the DNA, the amplification process, the instrument calibration, and then the comparison of the result to the known person.

So, Your Honor, I would submit that I need those documents in order to properly do a cross-examination.

THE COURT: Well, do the best you can. And then we'll see if the Government can find those and get them in your hands pretty quickly.

MS. SIRIGNANO: Thank you, Your Honor.

- Q. So is it normal procedure for you, as an examiner, when you have produced a report, to provide your reports and the SOPs, manuals, policies and procedures, to the United States Attorney's Office?
- A. We do, once requested. So I work -typically, I have 30 or so cases assigned to me at
 once. And most of those don't ever go to trial. So
 when the attorney requests a discovery, that's when
 we would hand over all of our materials. We would
 hand over copies of our case files, and then also



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copies of our standard operating procedures. So it's not every case. It's only when requested.

- Q. And that's routine; policies and procedures manuals go along with the case file when you have notice of litigation; correct?
- A. That is true. It depends on the case.

 Sometimes it's a little more complicated. So for a case like this, where there are many submissions, sometimes the legal team in order to expedite the process, will send out things piecemeal. Usually, they'll try to send it out in all one packet. But because this case is still ongoing at the laboratory, there are still open examinations at the laboratory, they may or may not have sent it in different packets. I'm not sure specifically to that.
 - O. Thank you.

So you testified earlier that DNA has been around since 1999; correct?

- A. The DNA testing that we specifically perform at the lab, the STR, short tandem repeats, has been around since '99 at the FBI Laboratory.
 - Q. Short tandem repeats?
 - A. Correct.
- Q. Now, tell us a little bit about the -- you used a STRmix computer program to perform the STR, or



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short tandem repeat testing in this case; correct?

- A. STRmix was not used for the testing. It was used for the interpretation calculation of a likelihood ratio after the testing was completed.

 STR testing itself is the actual process by which the DNA is copied and the profile is generated. But STRmix is a tool that we use to generate likelihood ratios and to do mixture deconvolution, or separation of contributors in a mixture.
 - Q. So how is STRmix different than the previous method that the FBI was using before the FBI adopted STRmix?
- A. The previous method threw out a lot of information. It was called a combined probabilty of inclusion. It's still a valid method to use; however, if you have low level samples, you cannot include multiple locations in your statistic calculation. So you are actually -- as an examiner, you're not able to use the information or all the information that was present.

STRmix is a continuous model that models for different processes within the DNA process. It models for drop-out. So if you're missing information, it actually has modeling for that. It also can model artifacts that can be seen. So it's a



- better tool that utilizes the entire profile, versus just parts of the profile.
- Q. So it's not a human analysis by any means; correct?
- There is definitely human involvement. 5 Α. So, as an examiner, I first do a visual comparison to see 6 7 if I believe the individual can be visually excluded. If a person is visually excluded as a contributor, I 8 do not run STRmix. I actually do that step first. 9 If I cannot visually exclude an individual, I will 10 11 then run STRmix. But I must review the output of 12 So the report that STRmix generates, I 13 review that report as well.
 - Q. So did you do a visual comparison in this case?
- 16 A. I did, yes.

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- Q. And what were your results?
- A. I cannot visually exclude Mr. Garcia to
 either the holster or the pistol; therefore, I ran
 STRmix for both items.
 - Q. And is that reflected in your reports?
 - A. That's just part of our procedure. So it's not specifically laid out in the report. However, if there was an exclusion, it would state that I excluded in that report. It would say an individual



- is excluded in the report.
 - Q. And what did you visually compare?
- A. The DNA profile from Mr. Garcia to the DNA profile from both holster, as well as the pistol.
 - Q. So let's be a little bit more certain with what we're talking about here. So you called the DNA profile from Mr. Garcia, item 58(1)a; correct?
 - A. I'm not sure what you're referring to. The parentheses one at the end?
- 10 Q. Yes.

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- A. That is just the collection item. So it's actually just item 58. But in the collection notes, it will have the parentheses, because that's part of the software we use to track the sample. It automatically adds that. But in my report it would just be item 58.
 - O. And then the firearm was item 3; correct?
- 18 A. Correct.
- Q. And the holster you identified as item 4; correct?
- 21 A. That is correct.
- Q. So you compared the DNA profile of item 58 with item 3 and item 4; correct?
 - A. That is correct, yes.
- 25 Q. Okay. And when you say the DNA profile,



what actually are you looking at?

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A. I'm looking at alleles, or DNA types, that are present at each location. So in STR testing -- at the time the holster and the pistol was tested, we were looking at a kit that looks at 15 STR, or short tandem repeat, locations. Each of these locations has DNA types present at them. The totality of all 15 types is what I'm referring to as a DNA profile.

With Mr. Garcia, I was using a different kit that actually looks at 24 DNA locations. And I compared those profiles to the previously tested evidence items.

- Q. Okay. So let's go into that a little bit. What's an allele?
- A. An allele is a DNA type at a location. So, for instance, if you receive seven repeats from your mom, then that would be called a seven allele. If you receive 10 from your dad, that would be a 10 allele. Your DNA profile at that location would be a 7/10. It's a combination of both alleles together which makes up your DNA profile.
- Q. And the kit that you use to test the firearm and the holster is called what?
 - A. Identifiler.
 - O. And how many locations does it test?



- A. It looks at 15 locations, in addition to a sex determining region.
- Q. Then you used a different kit for the buccal sample, correct, item 58?
- A. That is correct. And that's because the buccal sample came in approximately a year later. So at that time, we were no longer using Identifiler.

 We were using a new kit called GlobalFiler, which looks at 21 locations, and then three sex-determining locations, for a total of 24.
- Q. And why did the FBI go to the GlobalFiler kit?
 - A. We went to the kit because it looks at more locations, therefore, it has more discrimination potential. In addition, one of the main reasons is CODIS, which is the DNA database, is going to be switching to more locations in the future. And so it was recommended -- or mandated -- that all laboratories that participate in CODIS, which is the Combined DNA Index System, or that database, start using more up-to-date kits that have more locations.
 - Q. So I'd like to talk to you a little bit about this STRmix program.

Can you pull up CG-B 25, please.

Ms. Smith, what's this?





- A. This is the evidence check-in notes that my case administration group documented as the item was received into the DNA Casework Unit for the item 58 buccal sample for Mr. Garcia.
- Q. And in terms of relevant considerations for STRmix, the STRmix program only asks specific questions that you or the analyst or the examiner puts into the program; correct?
 - A. That is correct, yes.
- Q. And so with your hypotheses, you just compare Mr. Garcia's item 58, the buccal sample, with items 3 and 4; correct?
- 13 A. That is correct. I do it individually, 14 yes.
 - Q. Can you pull up CG-A 17.
 - Ms. Smith, do you recognize this document?
- 17 A. I do. That is the incoming lab exam

 18 request from the field, when the items -- the pistol

 19 and the black holster were submitted to the

 20 laboratory. This is the documentation I received.
 - Q. You received this from whom?
 - A. This would come from the FBI agent submitting the evidence to the lab, or any other contributor, when they submit evidence to the lab, they're required to fill out either a lab exam



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request or a letter.

- 2 Q. And this is an electronic communication
- 3 from Agent Sainato; correct?
- 4 A. Yes, that is correct.
- 5 Q. In the Albuquerque Division?
- 6 A. Yes, that is correct.
- Q. Part of that request is, it states at the
- 8 | bottom of that the page that entity, Mario Montoya,
- 9 is known to have touched items; correct?
- 10 A. It is listed as that, yes.
- 11 Q. Entity Christopher Garcia is believed to
- 12 have touched items; correct?
- 13 A. That is correct. That is also listed.
- 14 Q. At any point in time in your review of
- 15 | items 3 and 4, did you consider Mario Montoya's DNA
- 16 | as part of your testing and analysis?
- 17 A. I did not receive a sample from Mr.
- 18 Montoya, no.
- 19 Q. Why?
- 20 A. One was not provided.
- 21 Q. So you did not consider Mr. Montoya's DNA
- 22 in your findings then?
- 23 A. Unless a sample is submitted from
- 24 | individuals, I cannot consider them in my findings,
- 25 no.



	Q.	But	from this electronic communication, you
know	from	the	agent that entity Mario Montoya is
knowi	n to 1	nave	touched the item; correct?

- A. That is correct. And that's part of the misconception, is that DNA, we cannot use samples from databases for direct comparisons. So these individuals are listed under the assumption that either us or latent fingerprints can pull their samples for direct comparison. But, legally, DNA is not allowed to do that. And so the agent would have had to submit known reference samples directly to us, in order for me to do those comparisons.
- Q. And Mr. Mario Montoya is a government cooperating witness; correct?
 - A. I do not know specifically who he is, no.

 MS. SIRIGNANO: Your Honor, may I approach?

 THE COURT: You may.
 - MS. SIRIGNANO: Can you pull up CG-E DNA?
 - Q. Ms. Smith, do you recognize this document?
- A. I do not. It's between Agent Sainato and -- it looks like a different employee with the laboratory. Not myself.
- MS. SIRIGNANO: One moment, please, Your Honor.
 - O. Ms. Smith, we've already determined that



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- Agent Sainato was the case agent in Albuquerque submitting evidence to the lab; correct?
 - A. That is correct, yes.
- Q. And in this email -- Sherine Ali is a fingerprint examiner?
 - A. Yes, I believe so, yes.
 - O. Do you know Ms. Ali?
- A. I do not, no.

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- Q. So in looking at this email, Agent Sainato advises Ms. Ali -- and I'm going to quote from it, in the middle of the page -- "We're just hoping that Mr. Garcia's DNA fingerprints will be on the gun and/or holster for additional confirmation"; is that correct?
 - A. That's what it states in this email, yes.
- Q. And then on the top of the page it says,
 "You were interested in DNA examinations, but because
 of the nature of the evidence, DNA examinations would
 not be performed for these items." Correct?
 - A. That is also in a separate email, yes.
 - Q. So you've never seen this document before?
- A. No, we don't typically have all the emails from the other units in between the agents and other laboratory examiners. Just like they wouldn't necessarily have our emails. So, no, I have not read



this email.

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- Q. You were told by the FBI Albuquerque that they were hoping to find Mr. Garcia's DNA on items 3 and 4?
- A. I was not told that specifically. It was listed in a lab exam request, that they believe

 Mr. Garcia may have been in contact or handed this item over. So they were expecting, potentially, his DNA to be on this item. Yes, that was in the lab exam request that was previously shown.
 - Q. That was the last document that I pulled up on the visualizer; correct?
 - A. That is correct, yes.
 - Q. So you have knowledge that Mr. Garcia, perhaps, had touched these items; correct?
 - A. Yes. That was listed in the lab exam request, that he may have handed those over, yes.
 - Q. So how do you overcome any kind of bias from knowing that he might may have touched these items?
 - A. I perform the -- so for -- in this case, the comparison was performed over a year later. I could not visually exclude, because Mr. Garcia's DNA types were consistent with those on the firearm. So I ran STRmix. And STRmix doesn't have any bias



- potentially incorporated within the software. It
 does a mixture deconvolution first, before it even
 looks at the known. And then it also will, at that
 point, compare the known and calculate a likelihood
 ratio based off that. So there would be no bias
 associated with this.
 - Q. But without having Mr. Montoya's profile to consider, you've got a huge gap in the statistical analysis with STRmix; correct?
 - A. This would be independent of any additional contributors. Because on both firearm and the holster there is a mixture of four individuals on each of them. So I do expect other people to potentially match both of these items.
 - Q. But you can't rule out Mr. Montoya one way or the other; correct?
 - A. That is correct. I cannot rule out anyone, because I did not receive any additional known reference samples.
 - Q. And at no point in time did you go back to the laboratory, after you saw that incoming electronic communication, and say, Hey, can you please get a DNA sample from Mr. Montoya so I can use it in my comparison; correct?
 - A. No, I did not. And, again, this case,



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because there were so many submissions going on at
once, I wasn't sure, originally, who needed to be
compared to what. We had other buccal samples and
unrelated submissions. And so, at that time, I did
not request any additional knowns. The Garcia sample
came at a later date, directly to me.

- Q. So you've got a big gap in your mixture and your analysis profile, without Mr. Montoya's DNA profile; correct?
- A. I don't think that has anything to do with Mr. Montoya's sample. Again, there was a four-person mixture on both the holster and on the firearm. When I compared Mr. Garcia, I could not visually exclude him from either.

One of those items, the holster, there was much stronger support for Mr. Garcia being a contributor, because that likelihood ratio was greater than 700 billion.

For the gun, the likelihood ratio that I calculated was 28. But that would be independent of any other individuals.

- Q. But it's safe to assume that Mr. Montoya could be one of those three or four unknown individuals that was not properly analyzed; correct?
 - A. He could be one of the contributors. I





1 would not say it was not properly analyzed. 2 he was not analyzed because I never received a sample 3 from him. 4 But, again, when we receive samples from 5 the laboratory, we run every individual separately, or independently from the item. So we wouldn't --6 7 having Mr. Montoya's sample would not have changed my comparison to Mr. Garcia. 8 9 Q. Okay. Let's look at CG-B 62, please. 10 MS. SIRIGNANO: Your Honor, we need a 11 moment here. I apologize. 12 That's all right. THE COURT: 13 MS. SIRIGNANO: Thank you, Your Honor. 14 THE COURT: Certainly. 15 MS. SIRIGNANO: I love technology. 16 Ms. Smith, you recognize this document CG-B Ο. 17 062? This is the STRmix output report 18 I do. Α. 19 that was generated in reference to the firearm. 20 And it's a number of pages in length; Ο. 21 correct? 22 Α. Correct. It is listed as 20 pages. 23 That's down at the bottom of the document; Ο. 24 correct?

Α.

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That is correct, yes.

- Q. And so looking at this document, and the title, "Summary of input data," this shows that you used the IDplus version 2.4; correct?
 - A. That is correct.
- Q. You determined there were four contributors in this sample?
 - A. Yes, I did.

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- Q. And the input files are items 3 1A;
 g correct?
- 10 A. That is correct.
- 11 Q. That would be the firearm?
- 12 A. Correct.
- Q. And then the known contributors under the hypothesis is item 58(1); correct?
 - A. That is correct.
- 16 O. That is Mr. Garcia's buccal sample?
- 17 A. Correct.
- Q. And so why is the next column "known contributors under Hd" blank?
 - A. The way the STRmix works is if you have no additional individuals that you know for a fact will be on that item, that would be left blank, and it's just unknown contributors at that point. So, for instance, the known contributors under Hd for this would be four unrelated unknown individuals.

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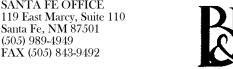
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- But you knew from the electronic communication that Mario Montoya had touched this firearm; correct?
- Α. It was listed as a contributor, but I did not have Mr. Montoya's sample when this analysis was And I still do not have that sample. that sample, if we know that the firearm was touched by him, I could include him as both a known contributor under both Hp and Hd. But, again, I do not have the sample.
- So you've got a big gap in your analysis Ο. here, because the known contributor, Mario Montoya, his DNA wasn't run; correct?
- I do not have a big gap here. Α. This is a normal process for when we have only one buccal sample. This is how it normally would be. So there is not a big gap in this analysis.
- But knowing that he did touch the firearm, you could have run the sample, and it would have been more accurate, had the sample been run; correct? Instead of four unknown individuals?
- Α. Without having his known sample -- just because an individual comes in contact with a firearm, it does not mean their DNA would be present. So I can't say that Mr. Montoya would even be



- conditioned on here, which is when we include someone under Hd. Because without having his known, I don't know if his DNA was present on that item. So I don't want to make an assumption that it was, because I don't have that sample.
 - Q. Can you pull up CG-B 065, please?

 MS. SIRIGNANO: I apologize, Your Honor.
- Q. Ms. Smith, this is Document 56. Do you recognize it?
- 10 A. Yes, I do recognize this. This is, again,
 11 a page of the STRmix output file.
 - Q. And in the middle of the page it says "parameters"; correct?
 - A. That is correct.
 - Q. These are the input values that the FBI enters into the STRmix program?
 - A. Those are the parameters that are entered based off of our validation. So those will remain identical every time.
 - Q. And that's the FBI's validation, right?
 - A. That is correct. When the FBI goes online with any type of software or kit, we have to validate that kit for use in our hands. And it was the same for STRmix. So these are the parameters that are locked into the software so that the user cannot



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- Q. And these parameters that are locked in were derived by the FBI; correct?
- A. The FBI's DNA Support Unit, who did the validation, along with ESR, which is the individuals who developed STRmix. Both the validation and these parameters were determined in combination of the two.
 - Q. What's the ESR? I'm sorry, I missed that.
- A. The ESR, it's Environmental Science and Research Institute. It is the organization that developed STRmix. They did their own developmental validation first. They, then, trained us on STRmix, and they assisted us in our internal validation.
 - Q. Is that an outside agency?
- 15 A. That is, yes.
- Q. So it's proprietary software that the FBI has purchased?
 - A. That is correct. It is software that is available for purchase. And there is multiple laboratories using it currently.
 - Q. And are part of co-developers of the

 Environmental Science Research Unit, John Buckleton;

 correct?
 - A. Yes.
- 25 O. James Curran?



1 A. Yes.

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- Q. And Jo-Anne Bright?
- 3 A. That is correct, yes.
- Q. So they're the co-developer of STRmix.
- 5 Anyone else?
 - A. I don't know specifically. I believe there was a Mr. Duncan -- but I don't recall his exact involvement. I'm sure there are multiple other individuals, though, involved, but those are the main three.
 - Q. So towards the bottom of that page, there is a box called "stutter variance," and there is a value next to that. Can you explain that?
 - A. This value specifically came from our validation, using part of the software that actually allows you to run single source samples through the software, to generate how much variance is on average that you're seeing. So this is based off of, again, that validation. Specifically, how it was derived would have come from the DNA Support Unit.
 - Q. Okay. But what's stutter?
 - A. Stutter is an artifact of the amplification process. So when you are copying the DNA, there are -- a very common occurrence is that the DNA strand can slip during that copying. That creates a



- stutter peak, which is one base pair shorter than the parent. So, for instance, if a person has a seven allele, you will see a very, very small peak at potentially the six location, just due to natural stutter.
- Q. So it's like a natural error, a natural anomaly in the amplification process?
- A. I wouldn't call it specifically an error.

 It's a known artifact. So this is something that can be reviewed by an examiner. It's also part of our validation, where we estimate what those stutter percentages should be at each of the different locations. And so, like I said, it's part of the process.
 - Q. And can you explain what drop-in is?
- A. Drop-in is when alleles that may not be present in the profile show up in the profile, just due to natural contaminant. We did not see any drop-in in our validation, so it's set at zero. We did not see it in any of the samples we ran at the parameters we set it at. We do not see drop-in, so, therefore, we do not include it, and therefore is set as zero in our parameters here.
- Q. So drop-in cap, drop-in frequency, drop-in parameters, which is part of this document, it's all



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- A. That is correct, yes.
- Q. So the FBI DNA Support Unit, with their validation, is saying that there is zero natural contaminant in all your samples?
- A. Based off of the settings we run our samples at. For instance, when we're doing the amplification process, our normal process, through the thousands of samples we analyzed with known profiles, we saw no instances of drop-in at the set parameters. We set our parameters based on the fact that we did not want to see any drop-in. So we set all of our thresholds above any potential drop-in. That can typically be seen with very low level samples that are run through an increased sensitivity testing, which we do not do at the FBI Laboratory.
- Q. So what you're saying is that there is no natural contaminant at all with your samples, based on your zero values entered?
- A. It's different. So contamination can happen. So, if a person sneezes while they're processing the evidence, their sample could show up on an item. It did not happen in this incidence, but that can happen. That's not what I'm referring to here. Drop-in is just when, if you know a person's



- DNA profile, you just see a very small DNA peak that shouldn't -- that doesn't belong there, it's just natural from the environment. And we do not see any of that instance in our validation, based off of the way we process our samples.
- Q. Well, the peaks are really important in the analysis; correct?
- A. That's correct. That's why we did our validation, so we would not see any of those instances.
 - Q. But they do show up naturally; correct?
- A. At very low level, with increased sensitivity testing, which we do not do at the FBI.
 - Q. Can you please pull up CG-B 62, please.
- Okay. Ms. Smith, let's try and do it the old-fashioned way. Okay. This is Document 62. So towards the bottom of the page, there is a column called "Run Information," or a heading called "Run Information." Can you explain what total iterations acceptance rate means?
- A. Total iterations is how many -- so, as part of the STRmix process, it goes through an MCMC, or Monte Carlo Markov Chain process, where it will go through different iterations of the profile. So it will estimate what those different genotypes are.



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With large -- with multiple people in the mixture -- so, in this instance, four individuals, in order to reach the 400,000 post burn-in acceptance, which what that means is we allow the first 1,000 excepts to be thrown out because we know that that's too early in the steps of the process, so the last 4,000 would be -- or excuse me, the last 400,000 -- would be the ones that are going to generate a more accurate deconvolution of your mixture.

The total iterations is how many iterations actually had to be generated in order to reach that 400,000 accepts. It's a very complicated process. But what that means is it had to run through 3.4 million iterations before it accepted the profile, for a total of 500,000 times.

- Q. And this is all information that's been put into the program based on the validation studies that you've all done; correct?
- A. That is not put into the program. The 400,000 is set into the program. So the first 100,000 of the deconvolution is thrown out. That's part of the validation. The last 400,000 is also from the validation. The total iterations is going to be profile dependent. When you have mixtures of four individuals, that number is going to be higher.



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     When you have lower number of contributors, say, one
     or two, it's going to be much lower, because it's
 2
     easier to deconvolute lower number of contributor
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     mixtures.
               And we don't have that in this case.
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     have -- what you said in your report is four
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     individuals; correct?
          Α.
               That is correct.
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          Ο.
               So, let me see if I could break this down
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     into --
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               THE COURT: Let me ask this:
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     Sirignano, would this be a good time for us to take
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     our lunch break?
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               MS. SIRIGNANO:
                               Yes, Your Honor.
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               THE COURT: All right. We'll be in recess
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     for about an hour.
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               (The Court stood in recess.)
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               THE COURT: All right. Everybody take
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     their seats. Nobody needs to rise. Just go ahead
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     and be seated. Everybody take their seats, and make
     sure everybody has got a counsel.
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               I should have identified Mr. Walz is here
     rather than Mr. Winder. Mr. Walz, good afternoon to
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     you.
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119 East Marcy, Suite 110

MR. WALZ: Thank you, sir.

1	THE COURT: Mr. Castle, you're here.
2	MR. CASTLE: Yes, Your Honor.
3	THE COURT: Good afternoon to you, Mr.
4	Castle.
5	MR. CASTLE: Good afternoon.
6	THE COURT: Who is on the phone?
7	THE CLERK: I am, Judge.
8	THE COURT: Okay. Anyone else on? Take
9	your mute button off.
10	MS. RODRIGUEZ: Raquel Rodriguez.
11	THE COURT: Anyone else?
12	All right. Ms. Smith, I'll remind you that
13	you're still under oath.
14	Ms. Sirignano, if you wish to continue your
15	cross-examination of Ms. Smith, you may do so at this
16	time.
17	MS. SIRIGNANO: Thank you, Your Honor.
18	THE COURT: Ms. Sirignano.
19	MS. SIRIGNANO: Your Honor, I'd just like
20	to put on the record that about five minutes ago the
21	Government gave to Mr. Adams, who gave to me, this
22	binder, this white binder of the DNA Casework Unit's
23	policies and procedures. And so I'd like to ask that
24	I have the evening to review this, and then recall
25	Ms. Smith tomorrow, if, after my review, there is



some cross-examination that I might need to ask her about.

THE COURT: How does the Government feel about that?

MS. ARMIJO: Maybe, if she finishes her examination today, and takes a break -- I just know that Ms. Smith has flight reservations to leave tonight at 9:00 p.m., and I don't know if she has a conflict tomorrow. We'd indicated to her that she would be on the stand today, and back to work tomorrow. So I'm not sure what she has going on. I can certainly talk to her about it at break.

THE COURT: Well, let's see how we go.

Maybe you can take a break and see if there is anything in there. I guess my sense is that the policies and procedures don't really impact the Daubert issue. I'm having a hard time seeing how the policies and procedures within the FBI are going to impact a Daubert issue here. She's here to say what she did. And I'm not sure that whether they did or didn't do what they might have in the policies or providers is going to impact that. But --

MS. SIRIGNANO: And, Your Honor, I don't agree with you one hundred percent that -- only for the record, Your Honor -- I'm not trying to be

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1	argumentative we've been asking for these
2	documents for quite some time now. And Ms. Smith
3	testified that this is routine with turning over
4	discovery in her office.
5	And, quite frankly, my position is that,
6	with the statistical results and this STRmix computer
7	program, and the threshold levels, which I talked to
8	the Court a little bit about before, I didn't know
9	what they were. And I still don't know exactly what
10	they all are, because they're contained in that
11	binder that I got just before we resumed.
12	So I understand she has to get home to
13	Virginia, and we're close to the holidays. But I
14	just would like the opportunity to take a look at it
15	before I release her from testifying, Your Honor.
16	THE COURT: Well, let's see if we can
17	maybe we move to other things here in a little bit,
18	see if you can take a look at it during while
19	other people are doing other things.
20	MS. SIRIGNANO: Thank you, Your Honor.
21	THE COURT: Ms. Sirignano.
22	BY MS. SIRIGNANO:
23	Q. Ms. Smith, I think before lunch we were
24	talking about the run information on page CG-B 62.
25	And you were explaining at the time about iterations;



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- A. Correct, yes.
- Q. Okay. And so you had stated that there were 3.4 million iterations within this STRmix program when the sample was run; correct?
- A. That's how many iterations were run while the sample was going through the STRmix process, yes.
- Q. Okay. And you had talked about MCMC, which you said was Monte Carlo Markov Chain; correct?
- 10 A. Correct.
- Q. And in layman's terms, that's the algorithm
 type that the program runs; yes?
 - A. Yes, that is one of them.
 - Q. And it checks the genotype when it runs through the system?
 - A. So you enter a DNA profile into the software; it then deconvolutes the mixture, which means it separates out the different contributors as part of that MCMC process. And then, lastly, it will apply a likelihood ratio to that deconvoluted mixture.
- Q. And you testified it used models to do that; correct?
 - A. Correct. It uses statistical models, in addition to biological models, which include stutter,

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degradation, things of those natures.

- Q. And on page CG-B 065, it shows that there were 500,000 checks, or guesses, the program, before it accepts or rejects a hit, so to speak; correct?
- A. 500,000 is the amount of the accepts, not the rejects.
 - Q. Accepts.

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So the computer program -- if I've got this correct -- because I'm not a statistician -- it goes through all of the data that came from all the profiles, from the electropherograms, and it does all these checks or guesses before it accepts an actual type; correct?

What it's doing is, you enter a profile Α. into the software; the first step is to break that mixture, or that sample up into its different What it does is it looks at what DNA components. types are present in the sample. It then uses a logarithm to guess what it thinks the profile should look like based off of the DNA types that are there. And compares that to the observed profile, what I entered. If it's similar to the observed profile, it will accept that iteration. If it's not similar at all, that guess is not similar to what the actual profile looks like, it will reject that profile, and



it will not include that as part of breakdown of the mixture.

And so it does this over and over and over again, until it's accepted the profile 500,000 times.

- Q. And it stops after 500,000 times; correct?
- A. Correct. And after it stops, it will apply weights to the different deconvolutions, or mixture breakdown, that it observed. And then, from there, it will apply -- or calculate likelihood ratios, if there are known individuals that are also included in your input.
- 12 0. Okay.

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- So you talked about weight. So let's go to CG-B 66. You previously testified there were four contributors to this mixed sample; yes?
- 16 A. Correct.
- Q. Okay. So on 66 -- this is contributor 1's profile; correct?
- 19 A. That is correct.
- Q. Okay. So in the middle column it says
 weighting, that's the weighting from the algorithm
 running and doing the checking?
 - A. Correct. That is the percentage of the time it assigned that contributor, each of those different genotypes that are listed there. And the

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- genotype is just the different profile at that location.
- Q. And so on the left-hand column it says "locus"; correct?
 - A. Correct.

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- Q. And locus is one of those STR locations, those short tandem repeat locations, for instance, D8 S 1179 is the name of one of those locations? And those locus appear on an electropherogram; correct?
- 10 A. Correct.
 - Q. What's an electropherogram?
- 12 A. An electropherogram is a printout of the 13 DNA profile as it comes off the instrument.
- Q. Okay. Can we pull up GC-B 59? This is an electropherogram; correct?
 - A. Correct, this is the DNA profile seen on the Phoenix Arms pistol at all of the locations on the screen. It's just some of the locations. But for this sample, the 15 locations plus the sex determining region would have been typed.
 - Q. And you've got nine loci on this electropherogram; correct? And those are the boxes in orange?
 - A. On this page, the page -- this profile goes onto additional pages, but on this specific page



there are nine.

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- Q. Okay. And can you pull up 60, please?

 And these are the remaining loci?
- A. Yes, that is correct.
- Q. And on page 61, is this your blank or your control?
- A. No, it is not. Let me back up just a little. It is, in essence, a form of a control, but it is not what I refer to as a control. A control is when you analyze a sample through the entire process that we know has no DNA in it. This is actually an internal lines size standard. What that means is it is actually is put into the sample, or with every sample, and it helps to estimate what the alleles are, based off their sizes. So this is a known that we put into every sample so that we can determine what the DNA types are.
- Q. Okay. Let's return to page 59, because we're going to compare page 66 with page 59.

So if you could go through this a little bit with me. The loci in the top left-hand corner is the D8 loci; correct?

- A. That is correct, yes.
- Q. And moving on to the right, D21, D7, and then CSF; correct?

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1 Α. Correct.

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- 2 And then going back to page 66, the locus Ο.
- 3 that I just stated appears on the left-hand column,
- 4 those first four, D8, D21, D7, and CSF; correct?
 - Α. They are listed on this page. Correct.
- 6 0. So they correspond; correct?
- 7 Α. Correct, yes.
- And if you kept going down through page 66 8 Ο.
- and the subsequent pages, it would go through each --9
- 21 different loci; correct? 10
- 11 For contributor 1, and then it would repeat
- 12 itself for all four contributors.
- 13 Ο. For all four contributors, okay.
- 14 So I would like to ask, for Contributor 1,
- 15 on page 66, on the very top it says, Contributor 1,
- 42 percent. So Contributor 1, STRmix determined 42 16
- 17 percent of that sample came from Contributor 1;
- 18 correct?
- 19 Α. Approximately, yes.
- 20 And then, on page 068, you determined that Ο.
- or STR determined that Contributor 2 was 30 percent 21
- 22 of the sample; correct?
- 23 Again, this is an estimation. Α.
- 24 yes.
- 25 Ο. Yes. And these are all estimations;



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correct?

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- A. Correct.
- Q. And, in your report, you have determined that Mr. Garcia's DNA is most consistent with
- 5 | Contributor 2; correct?
 - A. That is not listed in my report.
- Q. I'm sorry, in your worksheet -- did you call it a worksheet? Let me pull up the document.
- 9 Document 62. Is that correct?
- 10 THE WITNESS: Your Honor, may I refer to my
- 11 original page of this, just so I can see the
- 12 | noncopied version?
- THE COURT: Any objection to that, Ms.
- 14 | Siriquano?
- 15 MS. SIRIGNANO: No, not at all, Your Honor.
- 16 THE COURT: You may do so.
- 17 A. Oh. Yes, I'm sorry, I can determine it
- 18 here. Yes. So STRmix assigned Mr. Garcia to
- 19 | Contributor 2, that is correct.
- Q. And you can see that under the summary of
- 21 contributors, if you go over to the number 2, and you
- 22 go down to that bottom box, the number 58b(1), that's
- 23 the item 58, which was the buccal sample from
- 24 Mr. Garcia; yes?
- 25 A. Yes. The way this works is it puts



- Mr. Garcia wherever it gave the highest likelihood
 ratio. He could be any of those contributors,

 potentially. It just will provide you with the one
 that gives the highest likelihood ratio.
 - Q. You have no idea if he could be 1, 2, 3, or 4, is that what you're saying?
 - A. When you compare him to a profile, you can see that he cannot visually be excluded. STRmix runs the software against Mr. Garcia and the mixture, and it will give you the one that has the highest likelihood ratio. But that does not mean that it absolutely has to be that contributor. It could be other contributors.
 - Q. So STRmix is saying that the most probable genotype is based on the computer guessing and checking the genotype ratios from the different contributors; correct?
 - A. I wouldn't say it's just guessing. It's using mathematical modeling and statistical modeling, as well as biological modeling, to generate an expected profile based off of the data we're seeing. And then that compares any contributor -- so Mr. Garcia, in this case -- to all four deconvolutions, all four contributors. And it provides the likelihood ratio for the one that gives



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- the highest likelihood ratio or the most support,
 that is correct.
 - Q. The highest likelihood ratio.
 - A. And in that case, it was 28 for this case.
- Q. 28 percent.

- A. Not 28 percent. The likelihood ratio was
- Q. Right, so I'm trying to get from where we are now to 28, so if you could just work with me here. I'm trying to understand this whole system, this whole process here.
- Now, we're going to look at contributor 2, which STRmix determined was approximately 30 percent of the sample, the total sample, right?
- 15 A. Yes, that's correct.
- Q. Okay. And again, this has the locus, the combinations, D8, D21, D7, CSF, like we discussed earlier; correct?
- 19 A. Correct, yes.
- Q. And so on page B81, that's Mr. Garcia's profile, correct, from STRmix?
- A. That was the profile that I entered into STRmix, yes.
- Q. So at the D8 locus, his allele combination is -- excuse me, his genotype combination is 13, 15;



correct?

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- A. Correct.
- O. Tell us what that means.
- 4 A. It means that at the D8 location,
- Mr. Garcia received a 13 from either his mother or
 his father and a 15 from the other parent, making his

 DNA type at that location a 13, 15, which means he
- 8 has 13 repeats, and 15 repeats of the STR locus.
 - Q. And so each locus going down the left-hand column here, that 21 locus from the kit that you were running, it has -- corresponds with a genotype on the right; correct?
 - A. Yes, that is correct.
 - Q. And those are the numbers that the program uses to identify Mr. Garcia's DNA, the numbers in the genotype; correct?
 - A. This is the last step of the process, so I will input Mr. Garcia's profile into STRmix after the deconvolution is already done. So it doesn't utilize Mr. Garcia's profile until the entire mixture deconvolution is done. It will then compare him to the four contributors to see if there is a match, in essence. And if there is, it will provide a likelihood ratio.
 - O. Okay. So let's do that. Let's go back to



- page 68 -- actually, I'm sorry, on the bottom of 68,

 I believe there was a 69, and at the 13, 15 genotype,

 which we just established that was Mr. Garcia's

 genotype, the weighting was 12.544 percent; correct?
 - A. Yes. It would be on the next page, not the page that's on the screen.
 - Q. Okay. And so I don't want to belabor the issue, but if we compare page 81, and then the locus on page 69 -- could you go back to the entire page 69 -- Mr. Garcia's profile would be found -- or wouldn't be found in this contributor 2 profile; correct?
 - A. I'm not sure I understand the question.
 Could you repeat it?
 - Q. I'm sorry, that was a bad question.

 So looking at page 81, each locus has a corresponding genotype for Mr. Garcia; correct?
 - A. That is correct, yes.
 - Q. So, if we compare page 81, which is on the right-hand side of the screen, with the contributor 2 profile coming from page 69, on the left-hand side of the screen, we could do what the STRmix program does, and find each genotype for Mr. Garcia, if it's present in the contributor 2 profile; yes?
 - A. Yes, that is correct. However, I will



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- state that you don't -- depending on the profile, and in this case it was a low-level mixture -- there are some locations where you may not see Mr. Garcia's types. You may see a QQ, which means that STRmix estimated that drop-out could have occurred at that location. So you will not necessarily see his alleles at every single location.
 - Q. And so you find that in the D3 locus, as well as the D2S locus, and the TPOX locus; correct?
 - A. No. D3, his DNA is included in that deconvolution. CSF, I am not seeing his location, or his DNA. So that would be an instance where the QQ under this contributor number would have been applied to Mr. Garcia.
 - Q. And, I'm sorry, you're right. I misspoke.

 D3 is there. CSF is not there, as well as D2 on the

 next page, and TPOX; correct?
 - A. I want to go through each one specifically to feel comfortable agreeing to that. But it would not surprise me based on the level of this profile.
- Q. And you said the level of this profile is low; correct?
 - A. That's correct. And that's consistent with the likelihood ratio that was calculated as well.
 - O. So just looking at the first locus, D8, the

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- program is saying that 12.54 percent at the 13, 15
 genotype is Mr. Garcia's. And so 74.76 is not

 Mr. Garcia's; correct?
- 4 Α. Again, it's not in relation to Mr. Garcia. 5 What the profile is doing is it's saying 12.54 percent of the time it saw that contributor and its 6 deconvolution have a 13, 15. Mr. Garcia happens to 7 8 have a 13, 15, so that weighting would be applied to his likelihood ratio. But, yes, you're correct, the 9 other percentage of the time, 80-something percent of 10 11 the time it was not consistent with what Mr. Garcia
- 13 Q. 74.76 percent; yes?

had, that is correct.

- A. Possibly. I'd have to get a calculator.
- Q. Very good. I'll let you know my math is good.
- A. I think it actually would be a little
 higher. Because if it's only 12.4, I think it would
 be more in the 80s.
- Q. Okay. I'll take your word for it.
- 21 So looking at all of these locus, D2,
- 22 Mr. Garcia's weighted was 9.8 percent; at D7, it was
- 23 26.03 percent; at CSF, you said that there was the
- 24 QQ, the drop-out; at D3, the weighting was 9.9947
- 25 percent. This is Document 69. At TH01 the



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percentage was 4.9476 percent. And at D13, it was 4.48 percent.

I'm on page 70 now. At the locus D16, it was 13.70 percent. At D2, there was drop-out. At D19, it was 8.24 percent. And I won't go through the last five locus. But all very, very low percentages; correct?

- A. That is correct, yes.
- Q. So that's consistent with the low likelihood ratio; correct?
- Yes. So, typically, when you have a Α. mixture like this where there is a lot of possibilities for the contributors -- and I can tell that just based on looking at the mixture -- it's a low level, four-person mixture, there is a lot of possibilities of who could have contributed to this mixture. And that's reflected on the likelihood ratio that I got. The likelihood ratio typically will range from less than 1. But when it is a positive possible association, or more support that a person is included, it will range from 2 up to over 700 billion. So it is a large range. And in this case, the likelihood ratio was 28, which is on the lower end of the spectrum, yes.
 - O. Very low end of the spectrum?



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A. Correct, I would agree.

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- Q. When 700 billion is that high, correct, the highest?
- A. That's correct. And that's why we provide
 the number. But we also provide a level of support,
 and we actually list that in our report, so that you
 can see what the different groupings are that the FBI
 Lab reports, to not confuse anybody.
- 9 Q. Okay. So let's talk about your report at
 10 B003. I'm just going to talk about item one right
 11 now. Is this your report?
- 12 A. Yes, that is my second report, that is 13 correct.
- Q. I think the Government introduced this as number 2. And it's dated June 27, 2017?
 - A. Yes, that's correct.
- Q. This was after you got Mr. Garcia's buccal sample?
- 19 A. Yes, that's correct.
- Q. And in your report you stated, "Male and female DNA was obtained from item 3," which is the qun; correct?
- 23 A. Yes, that is correct.
 - Q. And so how did you draw this conclusion?
- 25 A. This conclusion was drawn by looking at the



- 1 sex determining region. It's called amelogenin. If
- 2 you are a female, you'll be an XX at that location.
- 3 If you're a male, you will automatically be an XY.
- 4 So, if you have only male DNA, you expect the X and Y
- 5 peaks to be of the same or similar heights. If you
- 6 have a mixture of both male and female, you expect
- 7 there to be slight discrepancies. So the FBI's
- 8 | policy based off our validation, is that if the ratio
- 9 is less than 60 percent between X and Y, we'll say
- 10 | that it's a mixture of both male and female.
- 11 Q. Less than 60 percent?
- 12 A. Yes.
- Q. And that would be in your policies;
- 14 | correct?
- 15 A. That would be mentioned in the policies,
- 16 yes.
- 17 Q. I didn't know that.
- So let's go to B-060. And this is another
- 19 | electropherogram; correct?
- 20 A. That is the same item, item 3. That's the
- 21 one we previously looked at.
- 22 O. Well, we looked at the D8 locus initially
- 23 on page 59, and now we're on page 60, which starts
- 24 | with the D19 locus; correct?
- 25 A. Correct. It is the same profile; it's just



- the second page of the profile. That's correct.
- Q. Thank you. So at the bottom of the page, on the left-hand side, there is a green bar, and you stated that this was amelogenin locus?
 - A. Amelogenin, yes.

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- Q. Okay. So this, you stated, discusses the proportions of the X and Y chromosomes; yes?
- A. Correct. In here, you can see that the X and Y are very similar, so the majority of this profile mostly contains male DNA; however, based off the ratio, it was less than 60 percent, so therefore, I called it a mixture of both male and female.
- Q. Okay. So let's do the work behind this data here. So the X box refers to what?
 - A. The X box is the X allele or the X DNA type, and that's found in both men and women. Females have two copies of it. They receive one from mom, one from dad. Males always will receive a Y from their dad; so the X comes from the mother, so they have one X one Y. So those are just the DNA types that are possible at the amelogenin locus.
 - Q. So at 855, which is in the X box, RFU, or relative fluorescent units, there was 106.26; correct?
 - A. That is not correct. So 106.26 is the size



- of that allele. 855 is how much of it was present.

 So that's the RFU value. So 106.26 and 855 are

 really unrelated with one another. They're just both aspects of that X allele.
 - Q. Of the X allele. Okay, thank you.

 And then, in the Y, there was 495 RFU present; correct?
 - A. That is correct.

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- Q. So we're talking about the DNA molecules in this particular allele; correct?
- That does not reflect how many DNA, or how Α. It's not much DNA necessarily was present. correlated specifically to how many molecules are What it's doing is, the more DNA you have in there. the system, the more fluorescence that DNA gives off And the reason when it runs through the instrument. why it does that is that all the DNA is labeled with fluorescent tags, so that when it passes the camera, it will pick up on how much DNA is present. more DNA present, the higher those numbers are. it does not correspond to exactly how many molecules are present.
 - O. Thank you for clarifying that.

So based on this XY combination, and that the Y at 495 RFUs is shorter than 60 percent, that's





- an indication that both men and women contributed to the sample?
- A. Yes. It appears based off of the ratio that there is mostly male DNA there; however, it does appear that the X is slightly higher. And if it is less than 60 percent, then we would state in our report that it's a mixture of both male and female, have at some point come in contact with that item.
 - Q. Do you know what the percentage is?
- A. I don't recall off the top of my head without a calculator. I believe it was in the 50s, but I can't recall exactly.
- Q. Okay. So let's go to CG-A 113. And this was part of the -- your notes for items 3 and 4; correct?
 - A. Yes, that's correct.
- Q. And we know that to be true based on the left-hand side of the page, the column that says exhibit number?
 - A. That is correct, yes.
- Q. And the quantification test that you do determines if there is enough DNA for the actual process; yes?
 - A. It allows us to see how much DNA is estimated to be in that sample. Because we do want



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- to target a specific amount of DNA. We want to target approximately one nanogram of DNA to get the best results. And with low level samples like these, we were not able to target that full amount.
- Q. So you did not have one nanogram of DNA in either one of these samples; correct?
- A. That is correct. We did not have a total of one nanogram when we did our processing. We know that we can process lower than that. It's just based off our validation, we aim for one nanogram because then we know we're going to see the most information based off the validation.
- Q. So you did two tests here, the duo human test and the duo male test; yes?
- A. It is one test, but it looks at both the amount of human DNA and also male. The reason why we do this is because on some cases this will allow us to determine if we should use a different STR typing kit that looks at male DNA only.
- Q. And looking at Exhibit 3, the human DNA that was detected, the quantities, and nanogram per microliter was 0.0448; correct?
 - A. Not percent.
 - Q. Excuse me. Go ahead.
- A. It's 0.0448 nanograms per microliter.



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- Q. And then for a male, it was 0.0432 nanograms per microliter; yes?
- A. Yes. But these, again, are estimations but yet it is.
 - Q. Yes. So they're all approximations in your whole report or your bench notes and your summary sheet; correct?
 - A. It is an estimation based off of how the PCR process works, yes.
 - Q. So, in terms of percentages, the PCR process found approximately 4 percent female DNA and 96 percent male DNA; yes, based on the quantities of nanograms per microliter?
 - A. I would have to get a calculator to determine that. But, again, these are estimates, so I wouldn't say that that's an exact representation.
 - Q. Well, I'm just doing the math: 0.0448 to turn it into a percentage. And does that sound unusual that only 4 percent would be female DNA?
 - A. Not necessarily, no. Like I said, looking at the profile, the majority of it does appear to be male, the X and the Y chromosome proportions were very similar. So, no, that wouldn't necessarily surprise me.
 - I just don't want to agree on specific



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numbers without a calculator present.

Q. Fair enough.

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So turning back to the electropherogram on B60. How do you reconcile this electropherogram with the quantitative notes that we just looked at?

- A. It's very common with low-level samples like this, because it is low amount of DNA. The process is not exact, it is an estimation. So you can have slight differences between what you're seeing at amelogenin, and what you're seeing in your quantification notes. So I'm not surprised to see that.
 - Q. The differences?
- A. Yes. So the quantification notes looked more similar in the amount of human and male. But again, at low-level samples it is extremely important to remember that it is an estimation. Same thing with the amplification here. This is a four-person low-level mixture. So, again, you're going to see an estimation of what is in that sample.
- Q. So how do you calculate the degree of imbalance on this electropherogram in terms of women or men at this locus?
- A. I can't without knowing exactly who is in the sample. It could be one female to three males,



potentially. It could be very little DNA. It could be individuals that have slight mutations at their amelogenin types, make their Y chromosomes slightly shorter. So it could be four males. There is possibilities that I can't speak to specifically without knowing exactly what the makeup of the sample is. And we never can tell that makeup.

- O. Never know; correct?
- A. That's correct. We don't know how this DNA or when it got deposited on this item.
- Q. So you drew the conclusion that male and female DNA was obtained from item 3, but you have no idea. It could have been four females; correct?
 - A. No, I would not expect that, no.
- Q. But you just said that it could be more than one woman; correct?
- A. It's possible. What it looks like is it looks like mostly male DNA, with some slight contribution from a female. I can't say for certain what that makeup is, because I do not know whose DNA is on this item. So I cannot say for certain.
- Q. But the total of the XY contribution, it could be more than 4 percent from the qualitative results that you received during the actual process of processing the DNA; correct?



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1	A. Yes, that is correct. And that's again
2	because they are low-level samples. We know that
3	the reason we target one nanogram from each
4	individual is because you know you're going to see a
5	complete picture of DNA. With less than one
6	nanogram, we know that we're not getting all of the
7	information. So you're going to see slight
8	discrepancies between the quantification and the
9	profile, because, again, these are estimates.
10	Q. And that would be in your SOPs, right, that

- Q. And that would be in your SOPs, right, that you require -- or you prefer, at least, one nanogram of DNA to run through the PCR process, yes?
- A. That would mostly be in our amplification procedure, yes.
- Q. But you had significantly less with this sample; correct?
 - A. I would say we had quite a bit less, yes.
 - Q. Okay. Let's go to CG-B. 65, please.

Now, we already talked about the parameters and how the FBI has set, and based on their validation they've locked in a zero value for their drop-in cap, drop-in frequency, and drop-in parameters; yes?

- A. Yes, that is correct.
- Q. Now, if you do have drop-in or drop-out,



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how do you know?

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- A. I would not expect to have drop-in because we did not see it in our validation. And we ran thousands upon thousands of samples through our validation.
 - Q. But it naturally occurs; yes?
- A. There is DNA in the environment, that is true. However, through the amplification process, how you amplify your samples, how many cycles you use, things like that, that is when you're going to see drop-in. Each lab is different. They may have more sensitive instruments than others. So, therefore, our validation was done to ensure we saw no drop-in. And we did not in our samples. We made sure to set our thresholds above that drop-in value. And that would be through our validation.
- Q. And contamination would be part of that; correct?
 - A. The drop-in and contamination are two separate incidents. Contamination is when a biologist may show up on an item, or if two items are touching one another, then they could show up on an item. But in this case each item was processed separately. And, again, I did not see any instances of contamination.



- Q. But it occurs -- maybe not in this sample, but it occurs generally in all kinds of laboratories; true?
- A. I would say it can happen. It's not a common occurrence. There is quality measures in place to prevent it. And then, if contamination is identified, the samples are reprocessed.
- Q. I just am having difficulty understanding, with zero parameters, how you can really reconcile drop-in or contamination. And I understand that you're saying that it was validated. But it happens. And so with a zero parameter, you've got no leeway for any of these natural events to happen; yes?
- A. Correct. What it does is it will -- STRmix will not model drop-in. And the reason it's not modeling it, is because we did a very extensive validation, which is also published in peer review articles that discusses what we did in our validation. And it was determined that we saw no drop-in at the parameters we were using. So, therefore, we do not expect to see it. And even if it did occur in this case, which there is no evidence of, and I would not expect, it wouldn't have a real effect, because of the fact that it is a four-person low-level mixture. To see one additional peak show

up would not exclude anybody specifically.

- Q. Okay. So I just want to talk a little bit about this validation. The peer review articles that you referred to in your internal validations on STRmix were done on Version 2.3; yes?
- A. Yes, it was done on the original version, a paper was written on the original 2.3. But, however, every time we up to a new version, we do another validation of that software. But the peer review article is not specifically to each version.
- Q. Correct. So the version that y'all used, or that you used on this sample was the new version 2.4.05; correct?
- A. Yes. And it's just -- there is some modifications to this newer version, allows us to accommodate GlobalFiler, which is the newer kit. However, again, a full validation was done. But the background information of how the validation was accomplished is in the peer review paper. They are very similar.
- Q. But they are also different, because it's a different version; yes?
- A. Slight differences. It's kind of like when you have Windows 8 goes to Windows 9. There are differences, but the main format is the same.





- Q. We're looking at B 062, up on the left-hand corner, it says which version you used; correct?
 - A. That is correct, yes.

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- Q. Version 2.4.05. So there is no peer review articles or no published papers regarding this version?
- A. We don't have a peer review publication for this specific version. However, the validation is on STRmix, in general, and the use of STRmix. The things that have changed were revalidated, and those are going to be reviewed by peers during audits and accreditation.
 - Q. What's been changed?
- A. For instance, the layout is changed slightly. So the calculations are similar, but the layout of the report is more user friendly. There are slight modification this allows us now -- we validate at 2.4.05, for using GlobalFiler, which is an updated kit.

So we did a very extensive validation on this version. However, we could not publish it because we have already put a publication out, and most publications don't want same publication multiple times.

O. And the validation summary, is that part of



- the documents that I was given, the SOPs and the manuals and the protocols, or not?
 - A. No.

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- Q. Are these validation studies public?
- A. The validation report is public. The STRmix validation is on many, many, many CDs. So it does exist, but we typically do not provide that on discovery.
 - Q. Is that something that we could get, when you get back to your office and provide it?
- A. That would have to go through our legal department. We don't typically provide that, no.
 - Q. Well, I'll ask your legal department then.
- A. I will say that the validation paper is public, which you can access.
 - O. But it's of a different version; correct?
- 17 A. Correct. But the validation is the same 18 between the two.
- 19 Q. But the versions are different; correct?
- 20 A. That is correct, yes.
- Q. Okay. So let's look at CG-A 140. This is a different electropherogram from what we've been
- 23 looking at; yes?
- 24 A. Yes, this is a positive control.
- 25 O. Positive control. And this is a single



source profile; yes?

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- A. That is correct.
 - Q. And looking at the bottom right-hand corner of the D18 locus there is a peak there, an allele peak, and underneath it there is a box that says "Spike, 279.75," and then 54, that's RFUs; correct?
 - A. That's correct.
 - Q. That's the height of the peak, the 54 RFUs?
- 9 A. Yes, that's correct.
- Q. Okay. So what's the FBI threshold for peak height in all electropherograms?
- 12 A. Fifty.
- 13 Q. Fifty. And --
- 14 A. At this time. Excuse me. It has changed.
- 15 Q. It has changed?
- A. With the GlobalFiler, we now have a different threshold. But with Identifiler, the Identifiler threshold is 50.
- Q. So in this electropherogram, which was done at the same time that items 3 and 4 were done, the threshold was 50 RFUs?
- 22 A. That is correct, yes.
- 23 O. And what is it for GlobalFiler now?
- A. The threshold is 150. And then the drop-out threshold is 725. And that's because we're



using different instruments that are more sensitive, and they actually -- the numbers are much higher in those instruments.

- Q. And that would be probably another change in the version of the software that you're using based on this GlobalFiler kit that you're using?
- A. The software itself is the same. The kits we're running is more about allele frequencies. So how common the different types are seen at the different locations. And there are some changes made to the software to accommodate the different kits, that is correct.
- Q. Because there would be more locations that you're looking at from 15 to 21 loci; correct?
- A. Correct. But that again, is not the STRmix itself. The validation has to be done on the kit itself, so that we can enter those values into STRmix. So, for instance, you're going to see slightly different stutter ratios between the GlobalFiler and the Identifiler, just due to how the kits behave.

For this case it's really only relevant with Identifiler, because the known reference sample is the only sample that was run with GlobalFiler.

And that was not deconvoluted using STRmix.

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Q. Let's just go a little slower because Ms. Bean's hands aren't keeping up with us.

So the different thresholds for the peak heights, for the stutter ratios, for the drop-out thresholds, those are all in the white binder that I just received after lunch; correct?

- A. No, those would be based off our validation. Those binders are specifically our protocols on how to interpret data, how to run the date through collection, extraction. And those are not procedures. Those are thresholds that we enter into STRmix through validation.
- Q. And you just said that the validation studies or reports are only public for the newer version -- or the older version; correct?
- A. The older version which would have those same ratios. The old version that's published is based off of Identifiler, which is relevant to this case. So although the version number changes, the stutter ratios, the variances, all of that would be the same as validation, which is published.
- Q. So I'm assuming, based on all this data, that the FBI continues to change and upgrade their kits and the software, and the DNA process using STRmix; correct?



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A. The STR process is the same. We look at different kits when necessary. We want to maintain the kit that we have. So we have GlobalFiler now. We're going to continue using GlobalFiler, and until a new kit comes out that the FBI deems is worthy of validating.

It really depends on the scenario. We do stay up to date. With the STRmix software there are new versions all the time. It depends on what those changes are, whether or not we will do a new validation on the new software. We just won't implement those version changes if they're irrelevant to our analysis.

- Q. And so how does the FBI reconcile a previous version with a better version and the results from a previous version? It would seem inconsistent to me, that work that was done previously on an older version is not as accurate as the newer version?
- A. I disagree with that completely. The two versions would be -- before we switch to a new version, we'd actually do a side-by-side comparison to ensure we're getting the same results using both versions. So you're not going to get a different answer with the newer version. The newer version



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just has more features. It allows us to use GlobalFiler. That's not because of the STRmix software. That's because we validated GlobalFiler using the newer version. The software always could handle it. We just hadn't validated it yet.

- Q. So what I'm hearing is that this is all done within the FBI, and all validated by the FBI. Has any outside entity or any peer review article been done or any study been done between the older versions and the newer versions that would make it generally accepted in the scientific community?
- A. STRmix, in general, has already been accepted in Daubert challenges for -- at the state level. There are many, many papers out about STRmix. And they may discuss the different versions. I don't know specifically of a paper that talks about the comparison between the two. I'm sure ESR, which is the developer of it, has a paper out there. They have hundreds of papers out there on all their different mathematical models for their testing. So I'm pretty sure there probably is. But I just don't know it off the top of my head.
- Q. Okay. But you didn't really answer my question. Do you know if there is a paper or something that's been peer reviewed, generally



- accepted in the scientific community, that has done a comparison, other than the FBI's validation, between these two versions of STRmix?
 - A. Again, STRmix itself is --
- Q. I'm sorry. I'd like to ask you to answer the question, please.
- A. I don't know the specific paper that compares the two. However, STRmix has been extensively peer reviewed.
- Q. The previous version, not the one that we're talking about?
- A. Again, I disagree with that, because STRmix itself has been developmentally validated, but would use multiple version. They run tests before they use multiple versions. They run tests before they release the versions. And before a lab can utilize them, they have to go through a validation process. So there may not be a paper that specifically addresses the different versions. But STRmix, in general, has gone through this extensive peer review publication. The versions are minor changes between the different ones. Again, just the same as Microsoft Office 8 will be slightly different than Microsoft Office 9, but the backbone is still the same.

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- Q. Let's talk about Microsoft 7 versus 10. They're extremely different; correct?
- A. It's possible. Again, I can't speak to the specific changes that ESR made. I can tell you that our validation did those studies and showed them to be providing the exact same results. So, therefore, I'm completely confident using different versions of the software.
- Q. But you can't say with any certainty that this new version, other than the FBI's own study, has been generally accepted in the community; correct?

 I'm not talking about the program, I'm talking about the version.
- A. Well, ESR has been using it for forensic casework since the beginning. So I do know that there are other labs that are doing this, yes.
- Q. ESR, meaning proprietary software developer; yes?
- A. They are the developer, but they're also a forensic laboratory that does caseworking analysis. So they have been using it in Australia and also New Zealand. And again, there are 30 or so, at least, different labs in the country using it. So they would also have to validate each software. They may not be published about the differences between those



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two specifically; however, again, every lab that uses the different softwares must validate them prior to their use. So it's not just the FBI.

Q. Okay. Thank you.

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Let's go back to CG-A 140. I'm sorry, I went off on a little tangent there.

And we were talking about the D18 locus there and the box with the 54 RFU peak, which you said was above the 50 RFU threshold. And there has been a red line, diagonal red line, put through this box; correct?

- 12 A. That is correct, because it is not a DNA
 13 peak. That's why it was crossed out.
 - Q. Well, what is it?
 - A. It's a spike which is an artifact. It's pull-up from the camera. The camera cannot visualize that separation well. So it's labeled as a spike by the software, and it is excluded, and I reviewed it, agreed, and then my technical reviewer also agreed.
 - Q. And you put the line manually through this spike; correct?
- A. I did. However, the software labeled it as a spike.
 - Q. Well, you don't really know if that's a real DNA molecule or not, or a real peak for a real





- 1 DNA molecule or not, do you?
- 2 A. I do based off my training and experience.
- 3 I can visualize the differences. They have a
- 4 | different morphology, meaning spikes are generally
- 5 thinner. They typically fall right below a peak in
- 6 another color, which in this case it did. This is a
- 7 | known artifact.
- Q. And contamination could be a spike, too;
- 9 | correct?
- 10 A. Contamination would not be a spike, no. It
- 11 | would be a peak that falls within a bin that is
- 12 | labeled as an allele. And this is not what this is.
- Q. And let's go to CG-A 201. This is another
- 14 | electropherogram; correct?
- 15 A. Yes, that is correct.
- Q. And it came from item 22; yes? At the top
- 17 on the left-hand corner?
- 18 A. Yes. And item 22 is a swab from a stain at
- 19 04 Aaron Court. It's a different submission.
- Q. And just for example, by way of example,
- 21 looking down at the D19 locus on the bottom left-hand
- 22 corner of the electropherogram, the 17 allele has
- 23 also been stricken at 56 RFUs; correct?
- 24 A. That is correct. And on the next page of
- 25 my electropherogram there is a zoom-in of that



- location. And it does not have the correct morphology of a peak. So, therefore, it was struck through.
- Q. What do you mean by doesn't have the correct morphology of a peak?
- A. As you can see, the peaks in this diagram are thin, tall peaks. The 17, if you zoomed in on that, which I do have a zoom of, that was provided in my case file, it's a flat, wide peak. So it's consistent again with bleed-through, which is another artifact in the process.
 - Q. What's bleed-through?
- A. Bleed-through, again, is when the camera cannot distinguish the colors. It's kind of similar to when a child slightly colors outside lines. It's not really picking up just in that one color channel.
- Q. What else could that be other than bleed-through?
- A. I don't think it's anything else besides bleed-through, based off of the zoom-in off the peak, which you cannot see in this electropherogram printout.
 - Q. Let's go to B 59, please.
- Okay. And we're back to item 3, this electropherogram. And at the D21 locus, you kept the



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59 RFU peak; correct?

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- A. I'm sorry. Can you repeat which locus, so
 I can see specifically what you're referring to.
 - Q. Oh, sure. D21.
 - A. Yes, I did.
 - Q. Okay. So how do you reconcile that this was at 59 RFUs, and the two samples we saw before were in that 50 to 60 range, and you kept this peak?
 - A. Again, it's comparing apples to oranges. The 32.2 here looks like a peak. It has the correct shape. It has the correct morphology. It's falling into a bin and being called by the software. The other two peaks that you showed previously, although they are above 50, they do not have the correct shape or morphology, so therefore, they were crossed out. That is part of my job as a forensic examiner to interpret every allele that I'm seeing to determine if whether it is a true peak or a potential artifact prior to running it through any software.
 - Q. And would your standards for interpretation be in this binder of policies and procedures, or is this something you learned elsewhere?
 - A. The basic information will be in the policies. It will mostly just state what a spike is, what bleed-through potentially is, what stutter is.



It will not go into detail. That mostly was during my training.

- Q. But you'd agree that a 50 to 60 RFU range in a low sample, low-level sample, is difficult to assess if there are DNA molecules or not; correct?
- A. Again, I don't agree that. The validation that was done on Identifiler showed that anything above 50 would be considered a true peak, versus background noise, unless it has the incorrect morphology, which those are easily distinguished. So a spike is easy to tell that it is not a real DNA type based off of the shape of the peak. Also bleed-through is the same way; it's easy to distinguish, versus a real peak.
- Q. So you're calling it a spike morphology and the artifact morphology -- the morphology for an artifact or a spike is different than an actual allele; correct?
 - A. Correct, yes.
- Q. And so how do you determine if there is drop-in or contamination in these peaks?
- A. Contamination if there is a profile that I can compare to my staff -- we have a staff database that I will compare certain profiles to. I will be able to see it in blanks. We run negative controls



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- and blank samples through the process. A blank has
 no DNA in the sample. So when I run that through the
 process, if I see any DNA in that sample, or in the
 negative control, I know that I have contamination.
- Q. Okay. Let's turn to number of contributors
 to a mixture. And you said that there were four in

And that did not occur in this case.

- 8 your report at CG-B 003; yes?
- 9 A. Yes.

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- Q. And you said the interpretation of item 3
 was performed assuming that the DNA originated from
 four individuals; correct?
- 13 A. Yes, that's correct.
 - O. And that's four and only four; yes?
- A. My interpretation was a four. We never know exactly how much people are on a sample.

 However, through my training and experience, I
- 19 Q. So four and only four?

determined it was four individuals.

- A. My interpretation was run at four. I do
 not know specifically. There could be more -- or
 there would not be less -- there could be more, but
 however, based on what I saw, I interpreted that that
 is four.
 - O. It could be three or more; correct?



- A. Again, I'd have to look at the profile. I saw no evidence of three. I saw four individuals during my interpretation.
- Q. And you used the maximum allele count to come to that determination?
- A. One of those -- that's one method. I also used peak heights between different alleles. So, for instance, if the two peaks are present, and they came from one person, they should be of similar heights. If there is a big discrepancy between them, I know that that has to be two people, so I would use that information in addition to the maximum allele count, which is just counting up the number of alleles I see and dividing it by two.
- Q. Let's do that. At CG-B 59, and at locus
 D13 there are seven alleles present there; correct?
- A. Yes, that is correct. So it has to be at least four individuals. And based off the peak heights and the rest of the profile, I determined it was four.
- Q. And did you use this locus D13, these peak heights to make that determination?
 - A. That was one of them, yes.
 - Q. And which other ones did you use?
 - A. I would use the whole profile. I look at



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- the entire profile. I'll look at each location. D13
 had seven alleles, so I knew it had to be four. If
 there was more than four, I would say it's five
 individuals. However, in this case, that's not what
- 6 Q. But it could be three or more, yes?
- A. Based off of D13, I do not believe it could be three or more.
 - Q. Okay. So what you said earlier was any human can contribute up to two alleles; correct?
- 11 A. Correct.

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I saw.

- Q. So if you have seven alleles divided by two, it's 3.5; correct?
- 14 A. Correct. So that has to be four people, 15 because you can't have half an allele.
 - Q. So, technically, your conclusion should be at least four; correct?
 - A. No. So STRmix, you must determine the number of contributors. So when I look at the profile as a whole, I will estimate the number of contributors, which in this case I did four. I then run it through the software at four. I will look to see the output, if there are any issues with that deconvolution. In this case, I did not see any.

 Therefore, I reported it as four, based off my

training and experience.

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- Q. Correct. But just to be clear, STRmix, if you put in four, it's going to generate data for four individuals; yes?
- A. It will, yes. But if it doesn't agree with that, sometimes you will see red flags when you're reviewing the output. You'll see issues with the deconvolution don't make sense. And in that case, I didn't do that.
- Q. But the program doesn't come back and say,
 Hey, this should be three, does it, or this should be
 five, does it?
- A. No, it does not. And that, again, is the human intervention aspect. The human intervention is -- we've been doing number of contributors for a very long time, and that's based off my training and experience, I came to four.
- Q. And the data set could be completely wrong if you chose four, and it should have been three or five; correct?
- A. It wouldn't be completely wrong. We did our validation, and we actually tested that so through our validation we actually increased the number by one, and we also decreased the number by one, to see what would happen if you are incorrect in



1 your assumption. And we saw the effect was 2 The reason we do this is we do not know negligible. 3 how many contributors are ever present, because we 4 were not there to see what DNA was left on an item. 5 We can only use what we're seeing in the profile, and do the number based off of our training and 6 7 experience.

- Q. Right. So like you just said, you don't know exactly how many numbers of contributors there are on a profile, especially when there is a mixed sample like this; correct?
- A. Correct. We never know. We make the best estimate we can based off of what we're seeing.
 - Q. And that's all it is, is a best estimate, it's a guess; correct?
 - A. It is an estimation. That's why we include those limitations in our reports.
- Q. And it's a subjective determination here; that's why I was saying that your report should say at least four, instead of four?
 - A. The interpretation using STRmix, that likelihood ratio was developed based on four. That is why it is listed as four in my report. And it was also technically reviewed by another qualified examiner, who also agreed that it was four.



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- Q. Correct. But you're putting the data into STRmix, and STRmix is generating the profiles based on the number of individuals you put into the system; yes?
- A. It is generating profiles, yes. But you, as an examiner, have to assess that profile first. The same thing with my technical reviewer would assess that profile first, before looking at the STRmix, and before running STRmix. Therefore, my technical reviewer and myself both agreed that it was four prior to running STRmix.
- Q. And what publications have you done or the FBI has done on the uncertainty in determining the number of individuals in a mixture?
- A. There is never any certainty, unless you make up the mixture yourself. So there are no publication based off of the certainty of the number. Through our validation, we discuss what would happen if you guessed the number wrong. So if you put in four, and it was really five, or you put in four, and it was really three, the validation covers those scenarios.
- Q. Right. And so the data would be incorrect, if you put the wrong number in; yes?
 - A. The number of contributors would. The



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- deconvolution showed that the -- in most instances,
 the deconvolution were similar. The only issue we
 saw was that low-level contributors would tend to get
 split out to two, instead of one, which would be
 incorrect. However, it also lets you false
 exclusions.
 - Q. And that's what we have here is a low-level contributor; true?
 - A. The whole profile is low level.
 - Q. Right. So this is my point: Specifically, is that the false, unknown individuals, false contributors, with low-level samples like this, there is significant uncertainty in this process; correct?
 - A. Again, I don't agree with that. I'm using my education and training to estimate the number of contributors, which I did here. I then analyzed the output from STRmix, and I saw no discrepancies. And then my technical reviewer both independently interpreted the profile, and then also ran or -- reviewed my STRmix output, and again agreed with me. So I do not believe there is issues.
 - O. Are you familiar with NIST?
 - A. I am, yes.
 - Q. The National Institute of Standards and Technology?



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A. Yes, I am.

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- Q. Are you familiar with their 2015 study, the Coble paper, regarding the uncertainty in the number of contributors in the new CODIS process?
- A. I have not read specifically that paper, but I've heard of that paper.
 - O. What have you heard about it?
- A. Just that they did a study using multiple laboratories. But that's all I know about the paper.
- Q. Multiple laboratories with multiple contributors for samples; correct?
- A. Yes. Again, that's based off of an individual's training and experience. I can't speak to specifically what they found in their study, and I can't speak to what they did in their study, because I have not read that paper.
- Q. Have you or the FBI done a study on the number of contributors in the mixture?
- A. Part of our validation, we ran samples of known number of contributors through the software. And we also analyzed what the number looked like after it was amplified. So we did do studies on it as part of our validation, but that would not specifically be published. That would -- parts of that would be published in the internal validation

paper. But we did additional studies as well.

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- Q. For the old software program; correct?
- A. For the software program that specifically speaks to Identifiler. We also did it with the new software as well.
 - Q. But nothing public in terms of uncertainty with number of contributors in the STR program within the FBI; yes?
 - A. Again, I disagree with that. We don't have a paper specifically labeled that. However, the validation paper is published, and it does talk about what happens when you run STRmix with incorrect number of contributors, which addresses your question.
 - Q. So you referred to this validation paper quite a number of times here. So was that the paper you're saying that I need to get from your legal department?
 - A. No, that paper is readily available on the internet.
 - Q. But the one on the newer software, I'd need to get from the legal department; correct?
 - A. The validation studies, all the paperwork, that is part of our -- that is in our laboratory. We don't typically hand over our validation on discovery





- requests. But our legal could potentially assist you with that. I just know we don't normally hand that over.
- Q. Right. But referred to a number of times today; yes?
- A. Our validation is the key aspect of our testing. We will not bring anything online until it's been validated, both developmentally by the manufacturer, and then also internally. So it is extremely important, yes.
- Q. Has the FBI studied drop-out or possibility of contamination with multiple individuals in a mixture?
- A. We looked at drop-out as part of our validation, again. Contamination wouldn't be specifically addressed in that study. However, it would refer to the fact that we did not see drop-in.

MS. SIRIGNANO: One second, please.

THE COURT: Certainly.

- Q. Okay. Let's go to the likelihood ratio. Finally, CG-B 003, that's your report. And you had two hypotheses here, and then you determined your likelihood ratio; yes?
 - A. That's correct, yes.
 - Q. The first hypothesis you assumed that the



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DNA originated from four individuals; yes?

- A. That would have been both hypothesis would assume four. Who those individuals are would be the differences. But yes.
- Q. Okay. And the second hypothesis, I guess what I saw was that Mr. Garcia, and there were three unknowns, to equal four; yes?
- A. Yes. So one hypotheses was Mr. Garcia and three unrelated unknown individuals. The other hypothesis was four unrelated, unknown individuals, which did not include Garcia.
- Q. Okay. So -- and this report you did on June 27, 2017; yes?
 - A. That is correct, yes.
 - Q. And so the likelihood ratio you determined in your report was the DNA typing results. And there is a footnote there, little 2, for item 3, are at least 28 times more likely if they originated from Garcia and three unrelated, unknown individuals, than if they originated from four unrelated unknown individuals; correct?
 - A. Yes, that's correct.
 - Q. And the calculations in your footnote were performed using African American, Caucasian,

 Southeastern Hispanic, and Southwestern Hispanic



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- A. Yes, that's correct.
- Q. And the likelihood ratio -- can we go to the next page, please, CG-B 004, please. That's on the next page; right?
 - A. Yes, that is the table that we provide to help explain where those likelihood ratios fall.
 - Q. So we've got 28 here; correct?
 - A. That is correct.
 - Q. And that would fall within the likelihood ratio of 10 to 99. And the qualitative equivalent or the verbal equivalent that the FBI assigned at this time with this likelihood ratio was moderate support; correct?
 - A. Yes. But that is, again, based off published -- this table was published by the Association of Forensic Science Providers. We use that table for this information.
 - Q. Are you the only one that uses this table?
 - A. Not from my understanding, no. I believe other laboratories use it. We have changed it slightly when we switched to GlobalFiler; however, this is a peer-reviewed published table. So I'm assuming there are a lot of labs that use this.
 - O. Do you know where it was peer reviewed?



- A. I do not know off the top of my head, no.
- Q. Is it accurate?

- A. I'm not sure what you mean by that.
- 4 Q. Is the table accurate?
- A. It is just a qualitative equivalent. Each
- 6 person is going to have to depend or use that
- 7 information, and apply how much support they believe
- 8 is present in that sample. However, it is used to
- 9 assist individuals reading my report kind of where
- 10 | the numbers I'm providing fall. So for -- in this
- 11 | case, 28 is lower on the spectrum. So it ranges from
- 12 | 2 to over 700 billion. So this table is just meant
- 13 to show what that means.
- 14 O. So you didn't actually say it was accurate.
- 15 | I appreciate your response. But it's literally right
- 16 | above weak support. And then uninformative; correct?
- 17 It's not extremely strong support; yes?
- 18 A. Yes, that's correct.
- 19 Q. And so if it was extremely strong support,
- 20 | then the ratio would be a million to less than 700
- 21 | billion; yes?
- 22 A. That's correct, yes.
- 23 O. Based on this standard or this chart in
- 24 | your report; correct?
- 25 A. Correct, yes.



1 Ο. Are you familiar with the State of New York 2 versus Hillary case? 3 Α. I am, yes. 4 And there was Frye hearing in that case? 5 Α. Yes. 6 MS. SIRIGNANO: Okay. Your Honor, I'd like 7 to offer the transcript of the Hillary case. found at either the People of the State of New York 8 versus or Oral N. Hillary; State of New York, County 9 10 Court, County of St. Lawrence; that's in Canton, New 11 And liked to mark this as CG-G, DNA. York. 12 MS. ARMIJO: Your Honor, I've never seen 13 this before. 14 THE COURT: Hold on just a second. Let me 15 get the marking of the exhibit. I thought this was going to be C. Do you have some in between? 16 17 MS. SIRIGNANO: I might, Your Honor, yes. 18 I have -- I had marked E. 19 THE COURT: You haven't offered any of 20 these? MS. SIRIGNANO: You're right, Your Honor. 21 22 I didn't introduce C or D. I introduced E. And I 23 might introduce F. But that one is G. Do you want 24 me to renumber them? 25 THE COURT: Why don't we mark this as C,

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because if you don't offer them, it will just make
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     the record confusing. Is that okay?
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               MS. SIRIGNANO:
                               Yes, Your Honor.
                           All right. Ms. Armijo?
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               THE COURT:
               MS. ARMIJO: I've never seen this before.
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     Our witness has never seen it before.
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                                            She's not a
 7
     witness in this. And it appears -- I don't know who
     testified, but she did not testify. So I would
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     object on relevance grounds. And unless this witness
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     is intimately familiar with this, or we can have a
11
     proffer of why this is relevant, I'm going to object
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     to it.
13
               THE COURT: All right. Well, I think I
14
    have read that transcript before in another case, so
15
     I'm familiar with it. I think it has enough
16
     relevance here. So I'll admit -- anybody else have
17
     any objection or thoughts on it?
18
               All right.
                           So I'm going to admit Chris
19
     Garcia's Exhibit C.
20
               Ms. Siriqnano.
21
               MS. SIRIGNANO:
                               Thank you, Judge.
22
     BY MS. SIRIGNANO:
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               You stated, Ms. Smith, that you were
     familiar with this case?
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          Α.
               I am familiar slightly, yes.
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1	MS. SIRIGNANO: May I approach?
2	THE COURT: You may.
3	Q. I've handed you page 75 of that transcript.
4	Dr. John Simon Buckleton testified at this hearing;
5	correct?
6	A. Yes, he did.
7	Q. And Dr. Buckleton is one of the co-founders
8	or co-developers of the STRmix program, yes?
9	A. He is, yes.
10	Q. And he testified at this hearing in New
11	York, yes, about the likelihood ratios in STRmix;
12	correct?
13	A. That is correct, yes.
14	Q. And looking at page 75 there, he talks
15	about likelihood ratios between one and 1,000 to be
16	inconclusive; correct?
17	A. I don't see that. I might not have half
18	the question is cut off.
19	MS. SIRIGNANO: Oh, I'm sorry. May I
20	approach, Your Honor?
21	THE COURT: You may.
22	Q. Here's page 74.
23	A. Yes, that is what Dr. Buckleton does say in
24	this testimony.
0 -	

Q.

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And he is one of the producers of this

software; yes?

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- A. On the software, the likelihood ratio and the number and the meaning behind it is not specifically about the software. It's about a likelihood ratio, and what the likelihood ratio means. The software is just a tool to calculate the likelihood ratio. But he does state that, yes.
- Q. And so the reason why he said that the likelihood ratios range between one and 1,000 to be inconclusive is because that's the range where the greatest occurrence of false positives or false inclusions occur; correct? Based on your training and experience, Ms. Smith.
- A. We know that the lower the number, when more and more individuals, that can occur. It was seen very, very infrequently. However, that is reflective of the statistics. So again, a statistic of 28 is very low on the spectrum.
- Q. And that's when the too close to call instances occur, and the data is uninformative regarding the likelihood ratios because the greatest occurrences of false positives; yes?
- A. I would not say it's unreliable. It is still an estimate. Again, there is still more support that Mr. Garcia is potentially a contributor.



- However, that likelihood ratios is what is important, and that is 28. That is lower on the spectrum. So it could match a lot of people. So there could be a lot of people that could be included as potential mixture.
- Q. So the 28 percent likelihood ratios could include what you just said, "a lot of people"; yes?
- A. That is possible, yes. And again, it's not a percent. The likelihood ratio is not a percent.

 The likelihood ratio is 28.
- Q. Likelihood ratio is 28. And the word I used was "uninformative." And Dr. Buckleton said that one to 1,000 would be inconclusive because it would be hard to differentiate between a donor and a non-donor, what you just said; yes?
- A. Yes. That is part of -- that's his opinion. Again, the FBI Lab did not have an inconclusive zone for Identifiler. We just reported the statistic. We're just trying to give the information, and how that is applied is up to the individuals reading our report.
- Q. But you do now, right, based after this Hillary testimony with this GlobalFiler kit, you all now have changed your likelihood ratios where one to 100 is inconclusive; yes?



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A. We have done that with GlobalFiler. But
that was not based off the Hillary testimony. That
was actually based off of our validation and what we
saw in validation.
Q. So your validation study completely changed
the likelihood ratios a month after you did your
report here; correct?
A. It was using a different kit. GlobalFiler
has a lot more locations. So, in general, if a
person cannot be excluded visually, the likelihood
ratio numbers that you get are very high. They can
be in the nonillions, for instance, or in the
decadillions. They get extremely, extremely high.
So, therefore, when we did our validation, we looked

THE COURT: Ms. Sirignano, would this be a good time for us to take our first afternoon break?

MS. SIRIGNANO: It would be, Your Honor.

THE COURT: All right. We'll be in recess for about 15 minutes.

at an inconclusive zone and did determine that

anything within -- up to 100 on the support for the

proposition that a person was included, would be

consider inconclusive. But that is based off the

GlobalFiler validation, not the Identifiler.

(The Court stood in recess.)





THE COURT: All right. Let's everyone grab
a seat. Make sure everybody has got an attorney.

All right. Ms. Smith, I'll remind you that

you're still under oath. Ms. Sirignano, if you wish to continue your cross-examination of Ms. Smith, you may do so at this time.

7 MS. SIRIGNANO: I do, Your Honor. Thank 8 you.

THE COURT: Ms. Sirignano.

10 BY MS. SIRIGNANO:

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- Q. Ms. Smith, before we broke, or before we had a break, you were testifying about this likelihood ratio chart on page 004, B 004, of your report. And then right before we took a break, we were talking about the GlobalFiler kit, and that the chart has changed; correct?
- A. It has changed since we went online with GlobalFiler, that is correct, yes.
- Q. And the one to 100 range is now -- the qualitative equivalent is inconclusive, correct, for GlobalFiler?
- A. Yes, one to 99 is inconclusive, that's correct.
- Q. And on your report -- can you back this
 out. You, in Footnote 1, stated that you did use the

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GlobalFiler kit; correct?

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- A. That was only used on the reference sample. That was not used on the evidence sample. The interpretation is based off the evidence, not the reference samples. But I did use it in this case specifically for the sample for Mr. Garcia only.
- Q. And so you had both kits used in this case; correct?
- A. Yes, because the samples were submitted a year apart, so we went online with GlobalFiler

 January of this year, and so we started amplifying

 DNA after that date with GlobalFiler.
- Q. So there is really no scientific basis, based on the earlier chart and the new chart, that would show that there is moderate support versus inconclusive in the likelihood ratio of 28; correct?
- A. 28 is a number that just provides information. That chart was based off a peer-reviewed, published chart that was already available that when we discussed it with other laboratories at SWGDAM, they were also using that chart. Since we switched to GlobalFiler, we decided to base it specifically on our most up-to-date validation studies, so that is changed slightly by including the inconclusive zone. But also that has a



lot to do with the fact that GlobalFiler has a lot more loci in its kit.

- Q. Right. And the 28 that was found was inconclusive with this GlobalFiler, the new chart; correct?
- A. No. A likelihood ratio of 28 would be inconclusive, but that would have to be from a sample that was amplified with GlobalFiler, which this is not. So it is completely separate.
- Q. But did you testify that the buccal swab from Garcia was amplified with GlobalFiler; correct?
- A. The buccal sample was. But the deconvolution using STRmix was done using Identifiler on the samples, not GlobalFiler. The kit used for the buccal sample was irrelevant for this.
- Q. I just don't think that there is any scientific basis for these labels and --

MS. ARMIJO: Objection.

THE COURT: Sustained.

MS. SIRIGNANO: Sorry, Your Honor.

- Q. The qualitative equivalent, moderate support, is based on what scientific basis?
- A. In my report you can see that it is in accordance with standards published by the Association of Forensic Science Providers. So that

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- was based off of their peer-reviewed publication. 1 We 2 feel that providing information to what that 3 likelihood ratio is, is the best policy. So when we 4 calculated the likelihood ratios using Identifiler, at that time, we always provided a number in both 5 directions, even with exclusions. When there was 6 7 more support for a possible exclusion, we still 8 provided those numbers as well.
 - Q. But you didn't really answer my question.

 I asked what scientific basis was used to come up
 with these qualitative equivalents?
 - A. I don't specifically recall what is in their publication. However, we know that a one is uninformative. That is how a likelihood ratio works. We also know that when you have low numbers, you're going to have less support. And that is explained on testimony. How, you know, a number of 28 means it could -- the DNA could have originated from Mr. Garcia, but also could have originated from other individuals. And that is why this equivalent is helpful. We're just trying to be helpful to the individuals reading our report.
 - Q. And the helpfulness changed from moderate support to inconclusive with the new GlobalFiler amplification kit; correct?



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A. You can't compare the two, because one is		
using Identifiler and one is using GlobalFiler. They		
are different kits because we have different number		
of loci. Identifiler is looking at 15 locations, so		
the numbers are generally lower for Identifiler.		
With GlobalFiler, you're looking at 21 locations that		
likelihood ratios are calculated for, so they're		
higher. So you can't compare the two charts to one		
another like that.		

MS. SIRIGNANO: May I have a minute?

THE COURT: You may.

- Q. You've testified a few times that you used both kits to come up with this report. It would seem intuitive that you could compare these two charts.
- A. I can see why you think that. However, the GlobalFiler amplification kit was utilized on the known reference sample; however, the deconvolution, the mixture deconvolution was used using the Identifiler kit. Because at the time the gun and holster were processed, we were only using the Identifiler kit.

A known reference sample, it does not matter what kit you use. We obtain knowns from other laboratories that may have used a kit that we don't even use at the FBI Laboratory, and we can still use

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- it, because STRmix is not taking into account what kit was used, when it comes to the known reference samples. It only matters what kit was utilized for the evidence items.
 - So, in this case, the only relevant kit to the STRmix deconvolution is Identifiler, which utilizes this equivalent chart.
- Q. Let's turn to item 4 on page CH-B 085.

 Item 4 is the holster that you analyzed; correct?
 - A. Yes, it is.
- 11 Q. And do you recognize page 85 here?
- 12 A. I do.

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- Q. And that's your 22-page summary report or summary sheet?
- 15 A. That is correct. This is my STRmix
 16 deconvolution for item 4, which is the holster, and
 17 its comparison to Mr. Garcia.
- Q. And let's turn to page B 087. And the header on this page is "Per locus likelihood ratios"; correct?
 - A. That is correct.
 - Q. And so this data, where did this come from?
- A. This is the likelihood ratios calculated
 for Mr. Garcia, based off of the mixture
 deconvolution that was used for the holster.

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- Q. And were all categories used in this analysis, meaning Caucasian, SEH, SWH, EAH?
- A. Whenever I calculate a likelihood ratio, I always calculate it for at least these four. We always calculate for Caucasian, African American, Southeast and Southwest Hispanics. The one that is reported is the lowest likelihood ratio. We always report the lowest number.
 - O. Which was the lowest number?
- A. In this case, the lowest number was for the Southwest Hispanics. Here, it was 8.3 to the 15. However, that number was not written in the report, because it was greater than 700 billion, which met our source threshold. So it will just say Mr. Garcia was the source of one of the contributors to this holster.
- Q. And the greater than 700 billion, that source threshold, where did that number come from?
- A. The FBI has been using source thresholds for many years. Other laboratories are also using it. This threshold was deemed by the FBI Laboratory.
- Q. Have there been publications, other than the validation studies on these source thresholds?
- A. There are publications based off of the source attribution thresholds. Different



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1	laboratories do use different thresholds, though.
2	Some laboratories may use the world population. Some
3	may use just the United States population. At the
4	FBI, we use the world population, then we increase
5	that up to 700 billion, just to ensure that we
6	wouldn't expect to see it again.
7	Q. So you use the world population, and you
8	increase 700 billion?
9	A. So at the time when we came up with this
10	number, the world's population was 7 billion. So we
11	increased that to 700 billion, just to be cautious.
12	Q. And these numbers are determined by the
13	FBI; correct?
14	A. That threshold that we use is determined by
15	the FBI. Other labs also have source attribution,
16	and that would be based off their own policies.
17	MS. SIRIGNANO: Your Honor, pass the
18	witness at this time.
19	THE COURT: Thank you. Ms. Sirignano.
20	Any other defendants have cross-examination
21	of Ms. Smith? Mr. Lowry?
22	EXAMINATION
23	BY MR. LOWRY:
24	Q. Good afternoon, Ms. Smith.
25	A. Good afternoon.





- Q. I just wanted to follow-up briefly on the validation issue. Are you familiar with a gentleman named Bruce Budowle?
 - A. I am, yes.

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- Q. Who is Bruce Budowle?
- A. Bruce Budowle is an individual who used to work for the FBI Laboratory. I believe now he's still at the University of North Texas.
- Q. How long did he direct the FBI Analytical Laboratory?
- 11 A. I don't know specifically. He has not been 12 with the lab since I've worked there.
 - Q. Okay. But it's fair to say he directed the FBI's Analytical Laboratory for a number of years?
 - A. He was not a director. He worked as a research individual that assisted in the bringing of a lot of our softwares online, yes.
 - Q. And it's software regarding the DNA analysis?
 - A. Policies and procedures, yes.
- Q. Are you familiar with Mr. Budowle's work
 that's critical of using low copy number DNA samples?
 - A. I am not specifically, because the FBI Lab does not do low copy number.
 - O. Well, and the reason I'm asking is, I





- remember at the beginning of Ms. Sirignano's

 presentation, you were looking at the nanograms of

 DNA available in these two samples, sample 3 and

 sample 4. Do you recall that?
- A. Yes, the FBI Lab aims for one nanogram;
 however, we have processed samples with less than
 that.
- Q. Right. And the ideal sample would be a nanogram?
- 10 A. According to our validation, yes. But we 11 can go, again, much lower.
- Q. But the ideal sample for a DNA test would be a nanogram; correct?
 - A. Yes, that's what we strive for.
- Q. And I believe, looking at items 3 and item

 4, they are roughly about half a nanogram?
- 17 A. Roughly, yes.

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- Q. And on top of that you're claiming that that half a nanogram was four separate individuals?
- A. Roughly, yes.
- Q. And so if you just took the half a nanogram, divided by four, there would be relatively little DNA per individual in the sample; correct?
- A. Yes, if they were contributing similar amounts. But yes, you're right.





- Q. The assumption is they're contributing equally?
 - A. Correct.

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- Q. But traditional DNA samples, if you assume equal contribution, they would all be in the arena of low copy number samples?
- A. They would have little template DNA, yes.

 Low copy number testing is specifically using
 enhanced techniques to see the DNA, which is known to
 pick up drop-in, which is the false alleles. That is
 using, for instance, increased number of
 amplification cycles. At the FBI we're using 27 for
 Identifiler. So, for instance, maybe using 30. That
 is an enhanced technique for low copy number testing.
 - Q. Right. But I'm not asking about the techniques to accommodate for low copy numbers. I'm saying just the raw data would be in the arena of low copy numbers?
 - A. It would be lower template, yes.
- Q. And let's be fair to the Court here. By "lower template" you mean there is less DNA per individual in the sample?
- A. Yes, this is a low-level sample, that is correct.
 - O. And by low-level sample, we mean a sample



that's probably under 250 picograms?

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- A. Potentially. I can't state specifically how much DNA each person is contributing.
 - Q. Right. And again, with the assumption a half a nanogram divided by four.
 - A. Right. But that would be less than 250, right.
 - Q. And 250 picograms, that's relatively the industry standard for defining low copy number?
 - A. That is possible, yes. Like I said, we don't do low copy numbers, so I don't know specifically what those labs quantify it as.
 - Q. That brings me to STRmix. Because the reason you use STRmix is so you can circumvent historical problems with low copy numbers; isn't hat right?
 - A. I wouldn't say it's to circumvent it, no. The low method we would see information that we just could not utilize. So STRmix allows us to use the entire profile. Our validation of STRmix looked at lower than one nanogram templates of DNA. So we looked at degraded samples. We looked at low copy samples for that validation.
 - Q. Let's talk about that validation quickly, because I didn't really catch it either on direct or



- the cross-examination. You validated the STRmix using the equipment at your laboratory at Quantico; correct?
 - A. Correct, yes.

- Q. And for a validation to be done correctly, you have to use the same equipment using the same software?
- A. Yes. So in order to do a validation, we use -- however we're planning on using it for casework is what you must validate. So you have to validate the appropriate equipment, the software, the STR typing kits, everything, yes.
- Q. Because the validation in your lab, in Quantico, for the Identifiler kit with, you know, a specific -- oh, I forget what you call the actual chromatography machine, but might be different from your lab to a lab in New Mexico?
- A. Correct. That's why it's important that the validation be done in-house. All labs must do an internal validation first. And there is actually a program within STRmix called Model Maker that assists you in doing that.
- Q. So for STRmix, you validated using the nanogram as baseline?
 - A. No. So STRmix -- so GlobalFiler





amplification, when we brought online GlobalFiler, 1 2 independent of STRmix, that is where we deemed that 3 GlobalFiler behaves a certain way using one nanogram. 4 So that's what we would aim to, so we didn't miss any information. STRmix, though, during the validation 5 we looked at a variety of types of mixtures, a 6 7 variety of amounts of DNA. So that we knew it 8 crossed all the potential types of samples we would 9 expect to see in casework.

- Q. So let's talk about the validation for STRmix. For a single source sample, how low did you go with the DNA quantity in your validation studies?
- A. I don't recall specifically how low. I know that we went down to the picogram level. I don't remember specifically what that level was at this point.
- Q. So do you recall that, for a single source sample, that your validation studies got below 250 picograms?
- A. I know that there were definitely samples at about 300 picograms. But I don't recall exactly how low it went. So I don't recall that.
- Q. Now, let's talk about a two-source sample, a known two-source sample. Did you validate for STRmix going down below 250 picograms per source?



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A. So as we increased the number of
contributors in our validation, we decreased we
definitely adjusted the ratios. So for two people,
we tested a 20 to one, a one to one, a one to 20, and
that varied in the amount of DNA. For a four-person
mixtures we did the same thing. We did like a 16 to
one, to one to one, all the way down to a one to one
to one to one mixture ratio. And that covered where
some of those people were very, very low levels, in
the hundreds of picograms. And we actually saw in
certain instances those people dropped out, or could
not be seen in the profile. So we did cover that
range in our validation.

- Q. Okay. Well, I'm not sure you answered my question. I'm going to ask it again. Because you said you validated down into the hundreds of picograms. And my question is: Did you validate the two-source sample below the low copy number, the low template number of 250 picograms?
- A. I believe we did. I believe we went down to 125 picograms. But I would have to refresh my memory. I can't recall specifically, because so many mixtures were run.
 - Q. So you can't recall, is the answer today?
 - A. Specifically for two person, no.



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- Q. What about for a three-person sample?
- A. Again, I don't recall the exact amount of DNA. I do know that we degraded the samples, using UV light, and also using clean, fresh samples. And we saw a variety of things. But I don't recall exactly how low we went. I believe it was 125 picograms, though.
- Q. But that would be in the validation studies?
 - A. Yes, it would.

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- Q. And those were the validation studies you said you'd have to talk to your legal department about disclosing to the defense team?
 - A. We don't typically hand over validation studies as part of discovery. So, yes, if those were requested, they would have to go through our legal department, yes.
 - Q. But for today's purposes, talking to this Court, you can't say definitively whether you validated the STRmix for two-source samples below 250 picograms?
- A. I do have the peer-reviewed publication of our validation with me. I can refer to that, if you'd like, so I can refresh my memory exactly how low we went.

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- 1 Q. Sure.
- THE WITNESS: Your Honor, do you mind if I
- 3 refer to my notes?
- 4 THE COURT: Any problem with that, Mr.
- 5 Lowry?
- 6 MR. LOWRY: Not at all.
- 7 THE COURT: All right. You may do so.
- 8 A. Okay. We did actually cover that range.
- 9 So in our internal validation of STRmix for the
- 10 interpretation of single source and mixed DNA
- 11 | profiles paper, which is published in the Forensic
- 12 | Science International Genetics, it does list out a
- 13 | summary of the mixtures that we tested. Those
- 14 mixtures, depending on the number of contributors,
- 15 ranged from .006 nanograms up to one nanogram.
- Q. Okay. So that's well above the 250
- 17 | picogram level?
- 18 A. That is much lower, yes.
- 19 Q. The 250 picogram is much lower than the .6
- 20 | nanogram?
- 21 A. It's .006 nanograms.
- Q. Got it. 60 picograms?
- 23 A. Yes, I believe that's correct. I would
- 24 | need a calculator. I'm not great with math in my
- 25 head.



- Q. Now, if we're talking about 60 picograms, that's probably -- for everybody else in the courtroom, that's probably one or two cells?
- A. It's very low cells, yes. Typically, it would just be a couple of cells, yes.
- Q. And how -- for that level of validation, was that a single-source sample?
- A. So for a number of contributors, that .006 to .9 nanograms, that was for two contributors. For four contributors, it was .05 nanograms to 3.2 nanograms. And that template range varied on the contributor.
- Q. So pass that back to me one more time. Was that three contributors?
 - A. Three contributors range from .021 to one nanogram contributor template.
- Q. And so in this case, we're talking about you assumed four contributors to the sample?
- A. Correct. But, again, I want to reiterate that the quantification is an estimate. So, again, we don't know exactly how much DNA starting material we had.
- Q. Correct. And that's one of the problems with mixtures, is you never know how much a single contributor provided in the mixture; isn't that true?

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- A. We never know how much anybody contributed to a mixture. We have to use our training, education, and experience to determine the interpretation of that.
- Q. Well, you really -- you think looking at an electropherogram you can deduce how much of a sample any one contributor made?
- A. No, you can't do that. I agree with you. You look at the entire profile, and see if you're seeing a low-level mixture, a high-level mixture. Do I think drop-out may have occurred? If I don't think drop-out occurred, then I'm going to interpret the profile differently.
- Q. So I just want to come back to the four contributors to a sample. Did the FBI validate for STRmix below 250 picograms per contributor?
- A. The chart in this paper specifically states that the FBI Laboratory, for a number of contributors of four, it ranged from .05 nanograms to 3.2 nanograms. So about exactly the amount of total DNA that I saw here, about half a nanogram.
- Q. Right. So that was for a half a nanogram for any single contributor?
- A. For this one table, that's what it appears, yes. Again, I would have to read the entire paper



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again to be sure. But --

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- Q. My question is really simple here. For samples, where we're assuming there are four contributors, did the FBI validate for any -- for a mixed sample with four contributors -- that you can give valid results for a single contributor in the mix that was less than 250 picograms?
- A. I don't know specifically the number.

 However, I do know the FBI validated a range of low
 level and high level template amounts. That gives me
 confidence in the way STRmix interpreted the sample.
- Q. But when you're talking about template amounts, you're talking about the total template amount?
- A. Right, but we're making the assumption that we know it's 250. And I know for a fact that this profile is not a one to one to one to one mixture, so that's not an appropriate assumption for this case.
- Q. So let's talk about this case. What would you estimate the ratios would be?
- A. Well, STRmix -- I don't recall the exact ratios. I would need to do that calculation. We don't do that specific calculation, but it estimated approximately a 42 percent contributor, a 30 percent contributor, a 20 percent contributor, and



- approximately a 7 percent contributor. So I don't know specifically what those ratios are without doing the math. But it is not a one to one to one.
- Q. Out of those percentages, which one of those percentages of the sample would you attribute to the potential match for Mr. Garcia?
- A. I cannot state specifically which one he is, if he is in there at all. And the reason for that is that is not how STRmix works. However, STRmix attributed him to the 30 percent contributor. If that is, in fact, from Garcia, which we cannot say.
- Q. And if you assume for the sake of argument, it's a 30 percent contributor, and you started out with a half a nanogram, he's roughly, what, 125, 150 picograms?
- A. Approximately. But, again, quantification is an estimate, so I can't correlate that directly to that.
 - Q. Okay. But I want to come back to where I started with. Mr. Budowle's critique of DNA analysis for a low template DNA is that the whole analysis becomes unstable and unpredictable given the low template amounts of DNA?
 - A. I don't agree with that assessment. I am



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not familiar with specifically what paper you're referring to. From my understanding, low copy number testing, if he's referring to that, is very different than low template amount. Our validation covered a variety of ranges. And we see these types of mixtures routinely on firearms and other items in which the individual is most likely touching, versus body fluid. So I'm completely confident in my results. And the 28 is reflective of that low-level sample.

- Q. Ms. Sirignano asked you about drop-in. And you said that in your validation studies, the FBI didn't come across drop-in as part of the validation studies; is that correct?
- A. That is correct. With Identifiler, we saw no instances of drop-in. So when we set our parameters for our amplification, we assumed a drop-in rate of zero for STRmix because of that validation.
- Q. And by the time you get to your electropherogram, and you're looking at the peak heights -- now refresh my recollection, is there absolutely no analytical, no stochastic threshold? Using STRmix, do you have a stochastic or analytical threshold for when you're calling an allele for a



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A. So STRmix uses a threshold of 50. So anything below 50 is considered potential background noise. Anything above 50 is considered a true peak, unless the analyst, including myself, looks at the data and deems that to be an artifact; then it would be removed.

We also have a threshold of 200 for Identifiler. Therefore, what that means is, if the peak is below 200, we know we may not see its partner peak. So, for instance, if a person is 7, 10, we may only see the 7. And that is also part of our validation. STRmix does not use that second threshold, because it is a continuous model and models for drop-out.

- Q. So if I understand what you said, I'm trying to understand that, you don't use the 50 RFU for STRmix?
- A. STRmix does use the 50 RFU; that's the analytical threshold. It does use that. Anything above 50 is considered a peak, not background noise.
- Q. Unless the analyst attributes that peak to stutter or some kind of known artifact?
- A. If the analyst attributes that to a known artifact, such as bleed-through or pull-up, STRmix



models stutter, so we do not delete out stutter necessarily.

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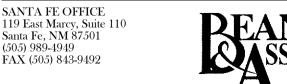
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- Q. I think that you said STRmix had been validated at the state level?
- A. Both federal and state. We're a federal laboratory, and we validated STRmix. However, it's also being used by other federal laboratories, in addition to state laboratories.
- Q. What state court has validated, in a Daubert challenge, STRmix for a four-contributor sample?
- A. I don't specifically know the number of contributors that have been challenged. I do know that Michigan is one that did approve the use of STRmix. And I know there are others. I believe there is seven or eight now. But I don't know the mixture ratios that they had.
- Q. What I'm talking about is a specific scientific challenge to STRmix. I mean, there would be a difference between challenging STRmix for a single contributor sample, as opposed to a four-contributor sample, wouldn't it?
- A. It would be a different challenge.

 However, if the laboratory validates them both, then
 I would say that they're both scientifically valid.

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1	Q. And my final question would be: For a
2	four-contributor sample, do you have the validation
3	studies that show any single contributor less than
4	250 picograms can get a reliable test result using
5	STRmix?
6	A. I can't recall the specific numbers, no.
7	But I do know we have the four-person mixture
8	validation. And I could find that information out.
9	MR. LOWRY: No further questions.
L 0	THE COURT: Thank you, Mr. Lowry.
L1	Any other defendants have cross-examination
L 2	of Ms. Smith?
L 3	All right. Ms. Armijo, you have redirect
L 4	of Ms. Smith?
L 5	REDIRECT EXAMINATION
L 6	BY MS. ARMIJO:
L 7	Q. Starting where we left off. In the states
L 8	that you were talking about with Mr. Lowry, is that
L 9	the same scientific validation that you would
20	consider this case?
21	A. Yes, it is. They would have done their own
22	internal validation at the specific laboratories.
23	But it would be on the same software, and an internal
24	validation would have to be done, just like we did.



You were asked on cross-examination about

Q.

how you protect against bias in this case. And how is it that STRmix protects against bias?

- A. STRmix does not have a means of having bias, because it is just a software program.
- Q. Let's see. Now, you were talking about the STRmix validation version that you use. Can you explain a little bit about the extensive validation that the FBI does with the version that you have done?
- A. Whenever the FBI Laboratory receives a new version from the ESR, or the software -- or the company that generated STRmix, they do an in-depth validation to show that it's behaving the same way as the previous validation. So they will potentially run new samples. They will run the same data through both software versions to ensure they're getting the same exact result. And we do that every time we have a new version. So we will not bring on a new version unless it meets those validation criteria.
 - Q. Was that done in this case?
- A. Yes, it was.
- Q. Now, you were talking on cross-examination about the validation where you get the low-level split-out into two, I believe -- I'm sorry, I was trying to write quickly. You said that the only



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thing that would cause would be false exclusions; is that correct? Do you know what I'm referring to?

- A. Yes, I know what you're referring to.

 That's not necessarily true. So, if you
 underestimate the number of contributors, so, for
 instance, if you call it a three-person mixture, and
 it is really a four-person mixture, then you could
 falsely exclude people, because you're not seeing -you're not attributing to the correct number of
 individuals. If you falsely increase the number of
 contributors, meaning it is really a three-person
 mixture, but you call it a four-person mixture, it
 will potentially generate a very low-level extra
 contributor, where you could falsely include.
 However, in our validation studies, we saw that it
 remained near uninformative.
- Q. And you indicated the validation paper that was published is regularly available on the internet?
- A. Yes, that is correct. Both the developmental and the internal validation papers are readily available.
- Q. Now, Ms. Sirignano admitted into evidence -- actually, I don't believe I see it. Do you have -- maybe you have it -- the transcript from that New York case.



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A. I only have two pages of that transcript up here.

MS. ARMIJO: Can we have the full copy of it, please?

- Q. Are you familiar with this case?
- A. I am vaguely familiar, yes.
- Q. Okay. And what were the issues in this case?
- In this case, specifically, the state in Α. which this hearing was set, their laboratory was not validated for using STRmix. They did not -- they had not done a validation study. They were not using STRmix on casework. So they requested -- or someone requested John Buckleton to use the data from the laboratory and run it through STRmix. The problem with that is STRmix does require you to generate the data on your own instruments, because the software's parameters are based off of your own validation. So the parameters he used were not based off of the laboratory's data. They were just estimates. And it was found that it was not suitable. And he could not testify to it, because he did not run the samples himself through the laboratory.
- Q. And in this case, did the FBI run samples themselves?



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- A. Yes. All of this data came off of our own instruments that have been validated for using software.
 - Q. Is the FBI validated for using STRmix?
- A. Yes, we are.

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- Q. So is that a distinction from the New York case?
 - A. Yes, it's a large distinction.
 - Q. And you were talking about comparing the different charts with Ms. Sirignano. Can you explain the differences between the charts, when you're talking about the numbers?
 - A. Are you referring to the kits that were used? I'm not sure which charts.
 - Q. She was talking about the charts for the numbers, when you talked about the number 28, as opposed to being a moderate support?
 - A. Yes. So the charts in this report that's relevant for this case is based off of a published chart that was available to us when we brought STRmix online. Likelihood ratios were newer to us as well. So we referred to individuals who are familiar with the qualitative equivalent. So we went to a peer-reviewed publication and used those -- that chart for identifying when we went online with this.



When we switched to GlobalFiler, because it uses so many more locations, we routinely saw numbers that were much, much higher. So based off of our validation, we deemed to have an inconclusive zone up to 100.

- Q. And is that why you indicate that, with the 28, it already takes that into account?
- A. It does. I mean, the 28 is a low number on that chart, when you look at how large it can get.

 So that is part of why we provide the numbers. It's just information. It means that there was more support that Mr. Garcia was a contributor, but it does not necessarily mean that he is the only possible contributor.
- Q. Now, in reference to the amount of samples in this case, was it, in your opinion, enough of a sample?
- A. Yes, it was.
- Q. And did the amount of the sample impact any of the validation of your testing?
- A. No, it did not.
- Q. And he was using the term "low copy," and you were using the term "low template." What is the distinction?
 - A. For me, personally, low copy refers to a



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technique in which you take low-level samples and try
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     to increase the amount of sample you have by using
     techniques that are going to make your samples
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     potentially contain drop-in and other artifacts.
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     It's a way to increase the level of DNA you have,
     which we do not do at the FBI Laboratory.
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               And in reference to the STRmix, where you
     said it was seven or eight other states in which
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     there have been Daubert hearings and it's been
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                Is it the same scientific validation that
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     you use?
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               Yes, it is. And again, that was an
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     estimation. I don't know the exact number.
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     around six or seven. But that is based off of
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     STRmix. And the individual labs do their own
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     validation, but it is the same software, yes.
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               MS. ARMIJO:
                            I have nothing further.
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     you.
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               THE COURT:
                           Thank you, Ms. Armijo.
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                           Ms. Smith, you may step down.
               All right.
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     Thank you for your testimony.
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               THE WITNESS:
                             May I be excused, Your Honor?
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                           May she be excused?
               THE COURT:
                               Your Honor, I'd like to
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               MS. SIRIGNANO:
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     review the SOPs that were just given to me and
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re-call her in the morning just briefly, to see if I 1 2 could use any of that materials in my 3 cross-examination. 4 THE COURT: How do you feel about that, Ms. 5 Armijo? MS. ARMIJO: Cross-examination of whom? 6 7 MS. SIRIGNANO: Of the witness. MS. ARMIJO: Your Honor, I think that that 8 would be going more towards -- and I think the Court 9 10 gave a great deal of indulgence to Ms. Sirignano. 11 This was more than just a Daubert hearing. This was 12 more of a cross-examination and preview and fishing 13 expedition. So we would request that she be excused at this point, unless there is something specific 14 15 that she can point to. 16 THE COURT: I don't think --17 MS. SIRIGNANO: Your Honor, I can't look at 18 materials or rely on materials or cross-examination 19 using materials that I haven't had five minutes to 20 review. And, unfortunately, this is a Daubert hearing, and despite my colleague's continued 21 22 thoughts about us doing a discovery fishing 23 expedition, all these questions and the SOPs -- which is why I asked for them months ago -- is within the 24 25 purview of Daubert and within cross-examination.



because the Government waited until the afternoon of the hearing to provide us with these documents,

Mr. Garcia shouldn't be penalized to have the opportunity to review it and cross-examine the witness on them. She referred to the SOPs on multiple instances here, and I haven't even had a chance to review them.

THE COURT: Well, I'd asked earlier -- you filed something, I guess, last night about -- I needed something from your expert as to why the FBI's DNA policies and procedures were essential to the Daubert hearing. And Ms. Arvizu, I quess, stated in the document you filed last night, she says, in sort of an ambiguous last sentence on page 2, lines 6 through 12, she said, "Without access to laboratory's policies and procedures, an independent reviewer would be unable to evaluate whether the subject testing conformed to applicable requirements of " -and here is where it's not clear, it says, "FBI policies, laboratory procedures, and consensus standards." If FBI modifies those three clauses, then again, that's what I've been saying all along, I'm not sure that anybody is telling me that these are necessary for their Daubert hearing. So she's not clear. It's a very conclusory sentence.

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1	hoping for more.
2	And so without more, Ms. Smith, you are
3	excused. I still don't have any foundation as to why
4	this is necessary for a Daubert hearing. Thank you
5	for your testimony.
6	THE WITNESS: Thank you, Your Honor.
7	THE COURT: All right. Does the Government
8	have further witnesses or evidence it wishes to
9	present on the Daubert hearing?
10	MS. ARMIJO: No, Your Honor. We have
11	nothing further.
12	THE COURT: All right. Do the
13	defendants Ms. Sirignano, do the defendants have
14	any witnesses or evidence it wishes to present on the
15	Daubert hearing?
16	MS. SIRIGNANO: No witnesses at this time,
17	Your Honor.
18	THE COURT: All right. Do you wish to
19	argue in support of your motion?
20	MS. SIRIGNANO: I do, Your Honor.
21	THE COURT: All right. Ms. Sirignano.
22	MS. SIRIGNANO: Your Honor, we've heard
23	from the witness, the Government's witness, the
24	Government's expert today, about the process that
25	they use to run this DNA, and then the STRmix



program, both the earlier version and this new version.

And what we did hear today was that this software program has -- the new version has not been peer reviewed. There hasn't been anything publicly published about this STRmix version; that they've got all these internal validation tests and reports, but nothing within the public realm, other than the earlier version of the software that explains how they validated this.

And I submit, Your Honor, that this DNA testing on this low-level sample, as you heard from the witness, is very unreliable. It's prone to false positives. It's uninformative. It's too close to call. And the developer of the STRmix software testified in that earlier case, although it being different, that this likelihood ratio of 28 would be inconclusive. And the reason for that is the possibility of false inclusions. The witness stated specifically that she could not say that Mr. Garcia was in this mix at all, or specifically, that he was in the mix, or whether he was in the mix at all.

So based on the math and based on the science, they assumed that he was a 30 percent contributor to this number 2 individual. And I



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     believe, based on Mr. Lowry's and my
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     cross-examination of this witness, a low-level sample
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     with a likelihood ratio of 28 is very sketchy, Your
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             It's uninformative. And we would ask at this
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     time, Your Honor, that because the witness testified
     that she can't deduce who contributed to the sample,
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     especially in a low-level sample like this, that you
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     use your gatekeeping function under Daubert and the
     other cases, and exclude this DNA evidence from
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     trial.
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               Thank you.
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                           All right. Thank you, Ms.
               THE COURT:
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     Sirignano.
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               Anyone else wish to argue in support of the
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     Daubert challenge?
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               All right. Ms. Armijo, if you wish to
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     respond?
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               MS. ARMIJO: Yes, Your Honor.
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               Quite simply, that's more of an argument
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     for a jury as far as the levels of it, and how much
     weight to give it. And you don't hear a DNA analyst
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     ever say:
                This is Chris Garcia's sample.
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     always talk about numbers; that's why it's one in 28,
     one in 700 billion. That's how you they determine
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          They're not able to ever say that something has
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1 come specifically from a person. So that's not 2 surprising. In this case, the software was validated by 3 4 The sample was sufficient. It may not have 5 been a great one. But she even testified that they see these samples routinely on items such as 6 7 firearms, as opposed to DNA fluids, like a rape kit or things like that, that this sample is sufficient. 8 And it clearly -- the method used by the FBI is a 9 valid scientific method; that the Court should allow 10 11 her to testify as a result on the firearm and the 12 holster. 13 THE COURT: All right. Thank you, 14 Ms. Armijo. 15 Anyone else have any rebuttal? All right. Ms. Sirignano, anything final? 16 17 I'll give you the final word. MS. SIRIGNANO: No. Thank you, Your Honor. 18 THE COURT: Well, I think the defendants 19 20 that joined this motion were trying to establish a large gap between what the FBI was doing and maybe 21 22 what they should be doing. And I'm not sure that the 23 gap is that great. It seems to me that the Government has established that the FBI's procedures 24 25 are in line with what other laboratories and experts



would do.

I think, at most, the arguments have gone to a misapplication or incorrect testing or inadequate testing, rather than that the methodology here is somehow flawed or not peer reviewed, or not scientific. And I think that's the purpose of the Daubert motion. There may be a great deal over the last day that goes to cross-examination, to weaken the Government's case in reliance on the information. But as far as the methodology that the FBI is using generally, and in this case, I think it's scientifically sound and satisfies the Daubert standard.

So I will deny the motion to exclude

Ms. Smith, and allow her to testify as to what is in
her report, and as to what was disclosed in today's
testimony.

All right. My understanding is that the next issue that we go to will be the motion for additional discovery regarding monetary payments to inmate informant witnesses. I know that there was -- no hearing was requested here, but I think to actually get through some of these issues, and try to resolve them, I'm going to need counsel to give me input. I think this might have been yours,



1 Ms. Harbour-Valdez? 2 MS. HARBOUR-VALDEZ: No, Your Honor. 3 Mr. Castle. 4 THE COURT: Mr. Castle. I knew it was this corner over here. Mr. Castle. 5 MR. CASTLE: Thank you, Your Honor. 6 7 You know, I really don't have a lot more 8 argument other than what I put in my motion. 9 THE COURT: I have read everything, but let 10 me make sure that I understand what you're asking. 11 So refresh my memory on this motion. 12 Well, what we've gotten so far MR. CASTLE: 13 is a summary of payments. We haven't gotten a lot of 14 information, like how it came about that someone got 15 \$2,000 or 40,000, such as did they request it? Did 16 they express a need? We don't know how it was paid. 17 We don't know what kinds of agreements were made in return for the money; that it was a quid pro quo of 18 19 sorts. We don't have receipts that they've given. 20 We don't know whether -- I think the Court heard 21 earlier testimony in one of the last couple weeks 22 where Agent Acee talked about how some payments are 23 made for expenses and some are made for services



rendered, I think is what I indicated. So we don't

know whether these amounts are one or the other

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obviously. We don't want to be in a situation where 1 2 we're cross-examining, and it turns out it is for 3 gasoline to come to court. 4 But all these things are relevant to the bias of the witness, the motivation of the witness in 5 testimony. 6 7 THE COURT: I quess you're trying to fit 8 all this into Giglio, right? MR. CASTLE: Exactly. And I think the 9 10 Government basically said -- originally what they 11 asked us is they wanted to check with the FBI to see 12 what they would be willing to share. I'm not sure 13 that's really been standard. I think the standard is 14 what they're required to share. And I'm not sure 15 whether I need to argue a lot, if they're going to 16 agree to turn this over. 17 THE COURT: Well, let's see what they say. I guess I'm inclined to think this is probably 18 19 impeachment material that's Giglio. You've just got 20 to get it and get it to them. Ms. Armijo? MS. ARMIJO: Your Honor, I think we could 21 22 shortcut a lot of this. We are agreeing to turn 23 over, on all of the CHSs that we have them on, FBI 24 files on, or payments to, the entire files, which 25 would include all this information. So anything that



they request that's specific to the files, we will, in fact, turn over.

It does require some FBI redaction. And then it will come to our office for personalized information redaction. But we are agreeing to give over the files that should include everything that they're requesting. If, after they review the files, there are specifics they can come to us and say:

What about this or what about that. But I think that that's the first step, and we should be able to resolve these issues giving the complete file.

THE COURT: With that representation of what they're willing to do, which sounds like it's what they've got to do under Giglio, is there anything more you need on this motion, Mr. Castle?

MR. CASTLE: The only thing I would add, is that a lot of times promises are not in written form. So, for example, the FBI manual that I referenced in the motion itself encourages agents to provide bonuses to cooperating witnesses after trial. If information like that has been communicated orally, and not put in writing, I think their obligation extends to that.

So I think it's a great start that they're going to look at that.





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               THE COURT: Let me ask you, Ms. Armijo,
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     would you agree that, if the FBI is making those sort
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     of promises, it would fall within the scope of the
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     request?
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               MS. ARMIJO: Probably so, yes. But I can't
     think of any instances in which that is being done.
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 7
     But if there is, and it will fall under that request,
     then it will be noted.
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               THE COURT: All right. Could you also do
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     this:
            That, after you talk to probably Mr. Acee, and
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    he can talk to his FBI, would you send a letter and
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     say: With the materials we're producing, we know of
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     no other promises or benefits that are being bestowed
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     other than what's going to be revealed by the
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     documents produced?
               MS. ARMIJO: Yes, Your Honor.
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               THE COURT: Does that get you on that, what
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    you need, Mr. Castle?
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               MR. CASTLE: Almost. Because I think
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     what's more --
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               THE COURT: You're on a roll, you're going
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     to keep asking.
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               MR. CASTLE: Exactly. I've had a couple of
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    weeks of rest, and I'm charged up.
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               But I think what's relevant, in addition to
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what the FBI has promised, is what's been requested by these witnesses. So these are individuals who are well schooled in the art of receiving what they want. And sometimes they want more than what the FBI gives. And I think their bias would be revealed additionally by anything they requested that Agent Acee in his decision decided not to provide. I think there was some testimony that when requests come in, it has to be screened, and evaluated, and they may or may not give it to the particular witness. I think those requests also have to be memorialized in some fashion, and provided to the defense.

The only other comment I'd make is that this was ordered to be produced back in November. Here we are, at the end of December, along with all the other Giglio material. And so any speed with which we could receive this material would be appreciated. And I think an order from the Court would be in line with that.

THE COURT: Let me take these in bites.

Ms. Armijo, is Mr. Acee going to be the only one that's going to know or have the information that people were requesting things that may or may not have been given? Are there going to be any other FBI agents, personnel involved?



1	MS. ARMIJO: May I have a moment?
2	THE COURT: Certainly.
3	MS. ARMIJO: I think, even if it wasn't
4	him, it would be reported to him.
5	THE COURT: All right. Could we do this?
6	Could we have Mr. Acee sit down on each cooperating
7	witness, and just think about it, and think about if
8	anything was requested; if he has to talk to somebody
9	else, and then could he do something for you that
10	indicates to the best of his memory, and any review
11	of documents he has to make, that these are the
12	requests that were made and not honored?
13	MS. ARMIJO: Yes.
14	THE COURT: All right. And I know you've
15	got the timeline or deadline. But now, does that
16	sort of handle substantively the request, Mr. Castle?
17	MR. CASTLE: I believe it does, Your Honor.
18	THE COURT: All right. When could we have
19	these three categories: One, documents, and then the
20	two representations that would be made largely by Mr.
21	Acee through the U.S. Attorney's Office?
22	MS. ARMIJO: Well, the documents
23	themselves, I think would be easier, because it's
24	just a matter of copying them. So maybe on I
25	guess, January 1st is a holiday maybe January 2.

PROFESSIONAL COURT REPORTING SERVICE

1	THE COURT: Would that deadline be
2	acceptable, Mr. Castle?
3	MR. CASTLE: Can I turn around and look at
4	the folks that are going to trial first?
5	THE COURT: Can y'all live with that, end
6	of business on January 2?
7	MR. CASTLE: Seeing no hands wagging.
8	THE COURT: All right. So I'll set that
9	for the deadline for all three of those categories:
10	Documents and the two representations.
11	Ms. Sirignano?
12	MS. SIRIGNANO: Quick question. Does that
13	mean it's going to go to Mr. Aoki on the 2nd or does
14	that mean it's going to come to us on the 2nd,
15	because there is some turnaround time we need to take
16	into consideration.
17	MS. ARMIJO: When I say we give something,
18	we give it to Mr. Aoki. We don't know what he does,
19	we're not privy to that information. So when we
20	disclose something, it goes to Mr. Aoki.
21	THE COURT: What sort of volume are you
22	looking at on this particular production?
23	MS. ARMIJO: Each informant file, of the
24	official informants is probably, on average, about 25
25	pages or so. So it's not a great deal. It's not



like the four boxes that we're going to be disclosing from a request from the Perez camp. So it should be much smaller than that.

THE COURT: Could we do on this one, given the squeeze we're beginning to get, because we'll be swinging within 30 days of the trial, with a January 2 production, could you send one set of materials to Mr. Castle, and then the rest to Aoki? And then, Mr. Castle, if you need to distribute it to some key people, then you can submit the cost of that copying on your CJA voucher.

MR. CASTLE: I will take that on, Your

Honor.

THE COURT: Could we do that on this single issue, Ms. Armijo?

MS. ARMIJO: Yes, as long as we're not going to keep doing it, because it's a big burden for our staff to keep producing it to different people.

each other, but I'm not going to be bound by any promises. So I may have to order something as we get closer to trial. So if you'll do it on this one, let's take this one and do it on this one, and then I may have to be ordering some different stuff as we get closer. But I think we have an agreement on this



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1 one. 2 So I'll so order. Anything else on that 3 order or that motion, Mr. Castle? 4 MR. CASTLE: No, Your Honor. 5 Anybody else? THE COURT: 6 MS. ARMIJO: Your Honor, just so we're 7 These documents should be -- when we send it to Mr. Aoki, we always make it clear that they are 8 9 sealed. And so this, obviously, would be under the 10 protective order, and we will note that in the letter 11 to Mr. Castle. 12 THE COURT: Everybody in agreement on that? 13 MR. CASTLE: Yes, Your Honor. 14 THE COURT: All right. I've worked out 15 something with Ms. Armijo and Mr. Castle. Anybody 16 have any objection to that? 17 Ms. Fox-Young, you're up first, so I'll 18 give you first. 19 MS. FOX-YOUNG: No objection, Your Honor. 20 I just want to get into a little bit of 21 The Court heard from Billy Cordova and 22 Special Agent Acee last week about the kinds of 23 promises that Mr. Castle references that might not be 24 written down. Special Agent Acee told the Court that 25 he -- the Government had promised that Mr. Cordova



1	wouldn't be charged in the RICO, as a result of his
2	cooperation. I think that's precisely the sort of
3	benefit that wouldn't be documented. And I think Ms.
4	Armijo just said they would submit something that
5	says that there were no other benefits. And so I
6	just ask the Court if the Court might order, when
7	Special Agent Acee goes through and looks at requests
8	that were made and not honored, that he also document
9	those types of benefits that have been afforded.
10	Thank you, Judge.
11	THE COURT: All right. Do you understand,
12	Mr. Acee, and I'm speaking through Ms. Armijo, that's
13	the kind of stuff you need to be thinking of?
14	MR. ACEE: Yes, Your Honor.
15	THE COURT: Is that agreeable, Ms. Armijo?
16	MS. ARMIJO: Yes, Your Honor.
17	THE COURT: All right. Mr. Lowry.
18	MR. LOWRY: Yes, Your Honor. Just briefly.
19	Just to follow-up on what Ms. Fox-Young said. There
20	were benefits and I just want to make sure we're
21	clear with the Government and Mr. Acee that we
22	know that Eric Duran worked in other jurisdictions.
23	And I believe in our Brady-Giglio motion we had
24	defined the benefits that any cooperating witness
25	would receive, could run from any manner of federal

1	departments. So we just want to make sure the
2	financial benefits from other jurisdictions of the
3	Department of Justice are included in the disclosure
4	as other types of benefits, like securing dismissals
5	of traffic tickets, criminal cases, that kind of
6	thin. I mean, we're of the mind that Mr. Duran has
7	been the beneficiary of a number of interventions on
8	his behalf with regard to those types of things. And
9	we haven't had any disclosure that I can lay my
10	fingers on. So if this would be included as well, it
11	would be much appreciated.
12	THE COURT: All right. And you're
13	listening to this, Mr. Acee?
14	MR. ACEE: Yes, sir.
15	THE COURT: And, Ms. Armijo, are you
16	agreeable to directing Mr. Acee to include that sort
17	of category in the information he's going to provide?
18	MS. ARMIJO: And just so that we're clear,
19	if there is documentation as to things, he's not
20	including it. What we're looking for specifically is
21	things that are not documented?
22	THE COURT: Yes.
23	MS. ARMIJO: Yes, Your Honor.
	,
24	THE COURT: Everybody in agreement how

SANTA FE OFFICE 119 East Marcy, Suite 110 Santa Fe, NM 87501 (505) 989-4949 FAX (505) 843-9492 All right. The next motion is a motion for advanced notice of witnesses to be called by the Government. Again, this was one that Mr. Castle and Mr. Cooper didn't ask for a hearing on, but I thought it would make sense for us to talk about it, because it's hard for me to probably work out something with everybody, if I'm just sitting in my chambers doing an order.

So here's my thoughts. Let me give you my thoughts, and then see if we can hammer out something that works. I probably am not inclined to tell the Government how far in advance to disclose their witnesses. I realize that some of you have indicated, persuasively, that that's going to require you to probably have experts sitting around listening to testimony longer than what would be the case if the Government would give advance notice. So I have a couple of thoughts on this issue. One, in a trial like this -- and I did them as a lawyer, I've done them as a judge -- it's hard for us to get through this thing if we don't cooperate a little bit. one thing for me to order something. It's another thing, we just try to cooperate. What I typically see, and what I typically did when I was practicing, as everybody at the end of the day, tell people who

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their witnesses are going to be for the next day.

And that is generally a gentlemen's and gentleladies'
way of trying to make a trial bearable for everybody
involved, so they have some anticipation of what is
going to occur the next day. It would be nice -- I'm
speaking now to the Government's table -- it would be
nice to see if we could have a little bit more
advance knowledge on people where the experts are
going to be involved. And that's because I have an
interest, and the Government and us all as taxpayers
have an interest in not having experts sitting around
any more than is going to be necessary.

So I was going to propose this: Without ordering the Government to give advance warning, see if they would be willing to give some advance knowledge of -- notice of when they're going to call somebody. And then, with the expert witnesses, if the defendants could send the Government a letter, and say, All right, we're going to want our experts here for these witnesses. And if the Government could try to tell the defendants to the best of their knowledge when that limited universe -- if you put every witness on there, this isn't going to work, but if you tell the Government that these three or four, however many witnesses, we're going to have experts

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here, can you tell us in advance, to the best of your
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     knowledge, when, at least within some range, those
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     experts, those witnesses are going to be there, it
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     might help us not have experts here all the time,
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    make sure the experts are here when they're supposed
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     to be, and try to save taxpayers some dollars.
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               So I think I know -- well, Mr. Castle, it's
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     your motion. What do you think about the proposal
     I'm putting on the table? You may have some
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     fine-tuning to that. But, you know, everybody that's
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     experienced a long trial like we're about to have,
12
     knows at some point we've got to work together to get
13
     through this thing. And this was the way I was
14
     thinking about handling your motion.
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               MR. CASTLE: Well, the Government is right.
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     There are no rules requiring anything.
                                             And so.
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     frankly, this is completely within the Court's
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     discretion, so we'll take whatever we can get.
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               I would analogize to exhibits.
                                                I mean,
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     there is no rule that requires the parties to, in
     advance of trial, try to give a good faith list of
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22
     our exhibits. But the Court knows that that's --
23
                           I'm probably going to lean on
               THE COURT:
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    people on exhibits.
25
               MR. CASTLE: Right, right.
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THE COURT: Otherwise, it just gets unwieldy to get through one of these things.

MR. CASTLE: And it's along those lines that I made this request. I mean, I think there is the issue of experts, which is one, but I think there is an issue of what crime base are you going to be dealing with for a while? I mean, I have seen this group of prosecutors. They're going to be organized. They're not going to be sprinkling in, you know, one crime base witnesses with another crime base witnesses.

THE COURT: Well, in fact, if you look at the motions, what I understand them to be requesting -- and I'm favorable to this motion, although I want to hear what the defendants say -- I think what they're saying, they want to take these things in categories, they want to put Mr. Acee on the stand, knock out some testimony, and some other witnesses. And then they may want to bring Mr. Acee back, let him do it again. I'm inclined to allow that, because I think it will help the defendants compartmentalize the parts of this trial. And I really think they're allowed to do that anyway. So, if we have sort of an agreement on that aspect, it may help the Government be more helpful on your

request.

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MR. CASTLE: I wasn't responding to that motion, but it seems reasonable to me, because I think the only way to logically explain this to a jury -- and frankly, I'd love it if they were illogical with the jury -- but I don't think they're going to be that way. I think they're going to produce evidence concerning certain counts that are Then we'll do the next counts and proceed related. in that fashion. Obviously, there is going to be some enterprise evidence that they're going to put on generally. So I would ask for that because, in our trial, which is trial number 2, if they put on Counts 1 and 2 first, and then, for the next eight weeks they're going to be focusing on evidence that doesn't relate to Counts 1 and 2, I'm telling -- well, Mr. Cooper and I are going to tell the rest of our staff to go home, and not charge the federal government.

And so there is a practical need for it.

But I think it's a practical need that goes both

ways. Because I think that what the defense would do

when we were told in advance what witnesses are going

to be called, my guess is they're going to ask: How

long do you think cross-examination is going to take?

And if both sides play close to the vest with their

cards, as far as the order in which witnesses are going to be called, it's going to be utter chaos.

Nobody can plan anything. They're not going to know if we're going on for three days with a particular witness or expert, and that will put their schedules off.

And I do understand what the Court is saying: Let's try to be collegial about this. And I really hope we can be on that. My goal, in filing this motion, was to hopefully get the Court to make some orders, so we all knew what that situation -- how we're going to operate here.

So I think the Court had indicated both, you know, the experts, and hopefully the night before -- but I would hope also what crime base we're going to be dealing with as a general concern.

And frankly, Judge, the only reason not to do this, not to tell the other side what witnesses you're going to call is tactical gamesmanship, to try to get an advantage on the other side. I'm not sure that's what we're after here, as far as fairness.

And the final thing I would note, is the prosecution asked for any rules to be for both sides.

And I would agree to that. I mean, I think we have to tell them what witnesses -- we're going to be

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telling each other, we're going to be tripping over 1 2 each other, the different defense teams. 3 that's fair, if we could operate in that fashion. 4 THE COURT: All right. Thank you, Mr. 5 Castle. Any other defendant want to speak to this 6 7 issue? 8 All right. Ms. Armijo, what will you give 9 us? MS. ARMIJO: Your Honor, I think that that 10 11 is reasonable, as long as the defense -- we certainly 12 can do it the night before, because I know that in 13 long trials that's what we routinely do. And we 14 certainly can help out with longer term things, as 15 long as we have who it is that they're interested in, 16 knowing that there might be some wiggle room. 17 I would add one caveat to that. I would ask that the information as to the witnesses the next 18 19 day, as it pertain to cooperators, not be relayed to 20 the defendants. THE COURT: Let me ask the defense lawyers: 21 22 Could you live with that; that if -- whether it's the 23 night before, or in advance, that the Government, 24 when they're going to put witnesses on, not be



conveyed to the defendants themselves? Live with

that, Mr. Castle?

MR. CASTLE: Yes, Your Honor.

THE COURT: All right. Anybody that can't live with that? So I think the more people can live with that, the more the Government is going to feel more comfortable, if it's attorneys' ears information only, or attorneys' eyes, they're going to be more comfortable about sharing strategy in advance.

Mr. Maynard?

MR. MAYNARD: Yes, Your Honor. I'm just not sure -- I mean, I can anticipate I may have a need, on the spur of the moment, because a certain witness is coming up the next day, and is one of the informants or cooperators, and I may want to talk to my client about it.

THE COURT: Well, if you can't, then I'm not going to probably order the defendants -- the Government to disclose anything. So if you're going to take that position, you're probably not going to get information the day before.

MR. MAYNARD: Well, if it puts me in a bind, I would rather have the information, even if I can't share it with my client than to not have it at all.

THE COURT: Well, you've got to pick your





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side here.
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               MR. MAYNARD: Obviously --
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               THE COURT: Tell the Government what you're
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     going to do.
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               MR. MAYNARD: Well, I'll have to keep it
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     from my client.
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               THE COURT:
                           Okay.
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                             I mean, I don't like it, but
               MR. MAYNARD:
     if that's going to be the rule, I have to accept it.
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               THE COURT: All right.
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               Anything you want to add, Mr. Cooper?
                                                       {\tt Ms.}
12
     Sirignano?
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               MR. COOPER: No, Your Honor.
                                              Thank you.
14
                           Anything, Ms. Sirignano?
               THE COURT:
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               MS. SIRIGNANO: Your Honor, I'm happy with
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     this agreement, I'm not objecting to it.
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               I think part of our anxiety on the defense
     is that the Government's witness list right now is
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     280-plus --
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               THE COURT: We're going to talk about that.
     I know it's an issue and a problem, and we'll -- I
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22
     can't guarantee a solution. But we're going to work
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     on it.
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               MS. SIRIGNANO:
                                Thank you, Judge.
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               THE COURT: All right. So the Government
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has an assurance from the defense counsel that if you will disclose witnesses in advance, they will not disclose it to the defendants.

So let me ask this: Let me see if I can push the Government a little bit to try to help the defendants get ready for this. And this is just an I -- and again, we might need to work on it. But would the Government be willing to give the defendants, at some point, a rough outline of how you're going to try the case? And I don't mean by that, paragraph 1A, little 1, little 2, telling them step by step. But would you be willing to give them a big outline of, you know, this week is going to be enterprise, this week is going to be Counts X and X, so they have some sense of where the witnesses are likely to show up, so that Mr. Castle and Mr. Cooper can do -- and the other lawyers can do -- kind of send their staff home, and go on airplane mode for a little bit? Can something like that be provided? And I'm not trying to pin down time. I'm not trying to talk about the detail of it. Could we get something like that?

MS. ARMIJO: Yes, Your Honor. I think we could do that before the trial starts. It's not something that would be generated immediately.



we could certainly do that. And again, with the 1 2 caveat that -- for instance, as a hypothetical, if we can say we want to have evidence on the Javier Molina 3 4 murder during these days, well, then, they're going 5 to anticipate Mr. Cordova coming in on those dates. And so we would again request that that specific 6 information not be shared for safety concerns, 7 because I think the marshals have their hands full 8 9 right now. And so we would agree to do that in 10 general terms. 11 All right. If the Government THE COURT: 12 is willing to do that, put out a general outline of 13 when the boxes they're going to have -- and that's 14 the way I'm thinking of it, so I hope this is helpful 15 to somebody -- boxes of how they're going to do the 16 trial, without filling it all in, would again, the 17 defense lawyers again agree to not disclose that general trial outline to clients? Mr. Castle, could 18 19 you agree? 20 MR. CASTLE: I agree, Your Honor. 21 THE COURT: Is there anybody that would not 22 agree? 23 All right. Let's see if we can push a 24 little further on the experts. What do you think 25 about my idea of the defendants' -- and it's not

going to work if everybody says, okay, you know, I 1 2 need to know on all 210 witnesses -- but if you can 3 identify some key witnesses that your expert has got 4 to be here for, could you send a letter to the 5 Government, and perhaps, we get an agreement from the Government that the Government would try to identify 6 7 those people as soon as possible as to where 8 generally they're going to try to call those 9 witnesses, so you could have your experts here? 10 Maybe everybody sort of discipline themselves --11 we've got five defendants; maybe everybody limit 12 themselves to three witnesses or something that 13 they're going to tell the Government, could you tell us where -- and that will be about 15 witnesses --14 15 could you tell us generally where they're going to 16 be, and try to keep us informed as the trial goes 17 What do you think about that idea, Mr. I think this is more -- maybe Ms. Sirignano 18 Castle? 19 was the one that talked a lot about the experts. 20 may not have been so much your concern. But what do 21 you think? That seems to be a reasonable 22 MR. CASTLE: 23 accommodation. The only other thing I would note is, I'm not sure whether the Court is contemplating 24 25 allowing some experts to perhaps call in and listen

to the testimony, if they can't make it here? 1 2 don't know if we filed that, or there has been a motion on that, or whether it's been covered by the 3 4 pretrial. 5 THE COURT: I'm agreeable to that. We'll see what the Government says here in a minute. 6 7 rather than having the defendants sit back there, have it on here, and they can listen to it. 8 the experts to -- assuming nobody tells me that 9 10 that's broadcasting, so it violates the Chief 11 Justice's order against broadcasting -- if I can have 12 an agreement from the experts that they're not going 13 to be sitting there recording it, or putting it on 14 the internet, or something like that, and get me in 15 trouble. But assuming nobody telling me that that's 16 a problem, I'm receptive to that. And it doesn't 17 seem to me a great deal different than somebody sitting back behind Ms. Sirignano for two or three 18 19 days, and somebody sitting here and doing that. 20 (A discussion was held off the record.) Ms. Sirignano, it sounds like 21 THE COURT: 22 Mr. Castle is sort of in agreement with that. 23 do you think? 24 MS. SIRIGNANO: In agreement, Your Honor. 25 My only request would be that we get that



letter from the Government -- I'm happy to write that letter over the next couple of days. I've got three experts that travel nationwide and internationally, and so it's very important for our defense to make sure that they're available during the time that we need them here. And so my request would only be that we work with each other to narrow that timeframe down, so we have continuity of the testimony. And not for just us to call our witnesses, but for them to be here when the Government witnesses are present.

And if the phone, if that's something that you'd agreed to with the phone, that possibly could work, so long as they're not testifying in another proceeding, Your Honor.

THE COURT: All right. Let's do this:

I've got to give Ms. Bean a break. Let me take a short break, and take about a 15-minute break and we'll come back in, and see if we can hammer this out.

During the break, I'd like all the defense lawyers to take a look at my opinion in Vigil, and the Government to look at it, too. I haven't had a chance to study it, but I'd like to pick that up next on the plea agreements. I'd like to go to that motion. It's always nice if I do something

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consistent in this case with what I did in another case. But it's not essential.

So if that answered all your questions, I remember working on that. But I think we can probably hammer out a compromise on what we're going to do with plea agreements and addendums. So we'll be back in 15 minutes.

(The Court stood in recess.)

THE COURT: All right. We'll go back on the record. It looks like every defendant has an attorney. Make sure we look around, help your co-defendants out.

All right. Are you on the phone, Ms. Wild?
Ms. Wild, do you have your mute button on? Ms. Wild
was expressing some concern to Ms. Standridge about
the experts being in the back. And I was going to
tell her that I think what she's concerned about is
that the AO has a policy, as you know, when we do
and -- because of the size of these courtrooms -when we do voir dire, we often use a microphone to
amplify, particularly the jurors' voices. I think
the AO allows that. But once the trial begins, I
think because of the frequency the microphones are
on, they don't allow those to be on. I don't think
that applies to telephones.



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1	Is she is on now? Ms. Wild, are you on the
2	phone? Ms. Wild, are you on the phone?
3	THE CLERK: Yes, sir.
4	THE COURT: I was telling them that you had
5	some concerns about having the experts on the
6	telephone listening. But I was wondering if what you
7	were thinking about was that my memory is that the AO
8	had a policy that when we use the microphones in voir
9	dire, that it was okay to use them then, but once the
10	trial started, i.e., the jurors raise their hand and
11	are sworn in, for double jeopardy purposes, that we
12	had to cut the microphones off because of the
13	frequency could be picked up outside of the
14	courtroom. Is that what you were thinking of?
15	THE CLERK: It may be. I'm looking in my
16	file right now. Hold on. Yes, there is. We did get
17	an AO policy about the wireless microphone security
18	concern.
19	THE COURT: I'm not seeing anything any
20	problem with experts listening in not testifying,
21	but listening in to testimony. Are you thinking of
22	something that I'm not thinking of?
23	THE CLERK: Potentially.
24	MR. CASTLE: Judge, I might be able to
25	short-circuit this.



1	THE CLERK: Do you want to discuss it now?
2	THE COURT: Well, is it something you need
3	to discuss with me?
4	THE CLERK: I think we better talk.
5	THE COURT: Hold on, Mr. Castle. Let me
6	see what Ms. Wild is thinking of. Hold on.
7	(A discussion was held off the record.)
8	THE COURT: Well, let me think about Ms.
9	Sirignano's request or maybe it was Mr. Castle's
10	request of having a line open. I guess, if I
11	could figure out a way, you know, how during these
12	hearings, people are bouncing on and off, and I don't
13	have time to get a clear record of who is on and who
14	is off if I just have an open phone, I don't have
15	a lot of control who can call in and participate. So
16	if we can figure out some solution to that, maybe
17	it's doable. But it might create some problems if I
18	just got an open phone line and people calling in and
19	out on our "meet me" conference line.
20	MR. CASTLE: I think we have a solution,
21	Judge.
22	THE COURT: Okay.
23	MR. CASTLE: Some of the attorneys for the
24	defense have requested daily transcript. And I think
25	that's up with the budgeting attorney. And I was

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     just talking to --
 2
               THE COURT:
                           Has Carey approved that?
 3
                           I think it's pending for her.
               MR. CASTLE:
 4
     But our experts are not going to be looking to see
 5
     the demeanor of another expert, they are listening
     for content. You can get content from a transcript
 6
 7
     so I think at this point in time, we're not making a
 8
     request for them to be able to call in.
                                               I think, if
     we get rejected the idea of daily transcript, then we
 9
10
     might reraise it. But I think that might be a very
11
     efficient way and less costly way to deal with the
12
     expert who is not appearing.
               THE COURT: Well, I don't want to look a
13
14
     stipulation or a gift horse in the mouth.
                                                But if I
15
     understood what Mr. Sirignano saying, she was talking
16
     about having her expert here for some fact witnesses.
17
     Am I wrong?
18
               MS. SIRIGNANO:
                               Probably not, Your Honor.
19
     It would be in -- to consider the Government's
20
     experts.
                           All right. Maybe that solves
21
               THE COURT:
22
     it.
          I thought Ms. Waters had approved the dailies
23
     for the trial. But maybe I'm ahead of the game.
24
     So --
25
               MS. SIRIGNANO: Mr. Villa had made that
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1
     request, I believe. And I think some of us wanted
 2
     dailies, and some of us wanted real-time during the
 3
    hearings. And I believe Your Honor has the real-time
 4
     as well during trial; is that correct?
 5
               THE COURT: I have real-time.
 6
               MS. SIRIGNANO:
                               Yes.
                                     So Mr. --
 7
               THE COURT: I have real-time all the time.
 8
               MR. CASTLE: Are you on airplane mode, Your
     Honor?
 9
               MS. SIRIGNANO: I think there is discussion
10
11
     about real-time and daily transcripts.
12
               THE COURT: My knowledge is that I have not
13
     seen a request for real-time from anybody.
                                                 But I
14
     thought I had approved, or Ms. Waters had approved
15
     the request for daily. So that's where I am on -- as
16
     far as my memory is concerned.
17
               MS. SIRIGNANO: Your Honor, would it be
18
    possible to get the real-time?
19
               THE COURT: Well, why don't y'all talk
2.0
     to --
21
               MS. SIRIGNANO:
                               Ms. Waters.
22
               THE COURT: -- Ms. Waters, and we'll go
23
     from there.
               MS. SIRIGNANO: Will do, Your Honor.
24
                                                      Thank
25
     you.
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THE COURT: All right. Before I hear from
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 2
     you, Mr. Castellano, is what I have sort of hammered
 3
     out with at least on the defense side, agreeable to
 4
     everybody?
                 I can put in this, as can you tell, I'm
 5
    not ordering the Government to do any of this. But
     it's going to be a gentlemen's and gentleladies'
 6
 7
     agreement, and once we agree, I consider that a
 8
     stipulation. I will enforce it.
 9
               Does everybody see the difference?
                                                   I do,
10
    but nobody else does. Just like any other
11
     stipulation. I mean, once it's there, I agree.
12
     I'm not going to -- you know, we're a little bit at
13
     the mercy of the Government here, because I'm
14
     probably not going to order them to do much as far as
15
     disclosure. Does everybody agree with this? Because
16
     you're agreeing not to share some stuff with your
17
     clients. And I'll enforce that with my powers, if
18
     everybody agrees.
19
               MR. BLACKBURN:
                               Judge, what does the
20
     real-time cost?
21
                           Well, I don't know.
               THE COURT:
                               I mean, I thought that you
22
               MR. BLACKBURN:
23
     can get it, we just flip a switch and it comes over
24
    here, too.
25
               THE COURT: No, she's shaking her head.
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MR. BLACKBURN: Besides the add-on cost for 1 2 you, I mean, I thought it was --3 THE COURT: It's a big deal to make it available for clients, for parties. Certainly, in 4 5 these big civil cases that I have, and stuff, where costs are not apparently a problem, they pay for it, 6 7 and want it. But it's not routine in any case 8 because the costs are significant. MR. BLACKBURN: I'll talk to Ms. Bean about 9 10 it. 11 But it's different than what THE COURT: 12 I've got up here. 13 All right. Anybody else on the defense 14 Everybody can live with what we've hammered side? 15 out? 16 All right. Let's see what Mr. Castellano 17 says. MR. CASTELLANO: Based on what's been 18 19 stated, Your Honor, it may not come to this. My only 20 concern about having experts on the phone would be that, if it does come to that, that we identify the 21 22 experts before the jury comes in, otherwise, the jury 23 is going to hear a bunch of names about experts and 24 who they may be tied to or what they may be an expert 25 So I would just say, to the greatest extent



possible, that we identify those people before the jury comes so they don't hear extraneous information. Typically, when experts are in the courtroom they sit in the back and no one gets to hear from them unless they become witnesses.

THE COURT: What is the difference from your standpoint? I agree with you, it sounds like we're going to try and avoid having experts on the telephone. What is your concern, if they're sitting there quietly, how is that different than being in the back behind Mr. Maynard?

MR. CASTELLANO: I see it as the same, but typically, when they sit in the back, no one identifies them or why they're in court. They're only to give information and aid the defense, they may not be there to actually testify. But the jury hears some expert on some subject matter that person never identified, speaking about someone outside in the ozone. That's just information the jury doesn't need to know, unless and until that witness becomes relevant to the proceedings.

THE COURT: Let's do this: Unless somebody comes back and reraises the issue, we will not have an open telephone line with experts calling in on "meet me" conference line. I won't deal with that



1	problem or work with that problem. If the defendants
2	want to reraise it, and think it's a solution, for
3	example, you don't get approval on dailies, or
4	something like that, then you can reapproach it. But
5	we'll take that issue off the table.
6	Now, can the Government live with
7	everything that I've sort of hammered out? Does that
8	give you the assurance to try to disclose some
9	information, any fine-tuning you want to do to the
10	agreement?
11	MR. CASTELLANO: I think that works fine,
12	Your Honor.
13	THE COURT: And you understand my
14	distinction that I'm not going to order you to do it?
15	But once we agree to it here, I will enforce it with
16	whatever powers I have.
17	MR. CASTELLANO: Yes, sir. That's
18	understood.
19	THE COURT: All right. Mr. Castle, then,
20	is there anything else on your motion that you think
21	I can do, or should do, or any other issues?
22	MR. CASTLE: No, Your Honor.
23	THE COURT: All right. So I will probably
24	not be granting that motion. But we've worked out
25	something that will try to help us get through the



trial.

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The next issue is Document All right. 1502, which is the motion in limine regarding plea agreements and addenda. I've not had a chance to look at my Vigil opinion that was the subject of the briefing. So, if anybody tells me I'm about to be inconsistent here, please do. My memory was that I didn't make a flat ruling on anything on that. correct me if I'm wrong. I guess my impression of the plea agreements and addenda in this case is they probably shouldn't come in, just whole hog, in the sense that they'd just be admitted into evidence. seems to me they probably contain some hearsay, some out of court statements being offered for the truth of the matter, particularly, the defendant or cooperators' statements of what occurred. probably needs to come in through the witness being here and under oath and subject to cross-examination.

On the other hand, it is a contract, and contracts do often come in for purposes of: There is a contract. And it is not so important that the terms be truthful. It's the fact that the parties reached a contract. So I guess I'm wondering what we can maybe agree to that should come in. It seemed to me in the reply that I read today, came in over the

weekend, maybe offered us perhaps a starting point that the defendants were suggesting what they could live with is -- that I'm not sure I'm going to go the Old Chief way, in the sense that, because the defendants are willing to stipulate, that the Government doesn't get to put in, maybe a redacted plea agreement. But I'll listen to that.

But it does seem to me that probably what ought to come in is going to be -- is going to be the charges to which the informant pled, the sentencing concessions, that section of the plea agreement, whatever the informant has to do to secure those concessions, which may be that he has to cooperate, he or she has to cooperate, and testify truthfully, and those sort of things. But that might be the limit of what ought to come in.

Let me turn to you, Mr. Castle, Mr. Cooper, since it's your motion. I know you don't like the idea of a redacted plea agreement coming in. But it seems to me that it's a contract, so some of the terms probably are not hearsay. They're more in the terms of this is what occurred, and the exchange of those problems. Could you live with that redacted plea agreement?

MR. CASTLE: Well, I actually attached a



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copy of a plea agreement redacted, anticipated where the Court might go, given its ruling in Vigil.

THE COURT: Tell me -- refresh my memory what I did in Vigil.

MR. CASTLE: Well, Vigil, the Court allowed the plea agreements in. But they were different kinds of plea agreements. So one of them had no recitation of the facts, another one had recitation of the facts in which they implicated that weren't on trial. So there wasn't the same issues, and the Court didn't address confrontation at all.

Another argument that I thought of today, flying to court, is that these witnesses are going to be questioned what their agreement is. And then what the Government wants to do is put the actual written agreement in to support what the agreement was. And when they do that, they're essentially -- it's a prior consistent statement, but it really becomes testimony by the informant in written form that the jury takes back to the jury room.

THE COURT: Well, if we keep out the statement of the facts, their version of events, tell me -- I certainly understand that -- what else in the agreement are you concerned about?

MR. CASTLE: Well, there is a portion of





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     the agreement where the Government indicates that
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     they believe that the -- or they're asserting the
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     defendant has clearly demonstrated --
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               THE COURT:
                           Tell me what page you're on.
 5
               MR. CASTLE: Of the plea agreement, or --
                           Yes, the plea agreement.
 6
               THE COURT:
 7
               MR. CASTLE: It would be page 5, paragraph
 8
          Unfortunately, that might be redacted on the
 9
     Court's copy, because I suggested a redaction.
10
     what it says is, "The defendants clearly demonstrate
11
     the recognition of affirmative acceptance of personal
12
     responsibilities for the defendant's criminal
13
     conduct." That sentence, I believe, is an assertion
14
     that both the United States and the defendant are
15
     making, because --
16
               THE COURT:
                           I'm looking at page 5.
                                                    But I'm
17
     still not seeing it. Point to me where it is on page
18
     5.
19
               MR. CASTLE:
                           It's paragraph 10.
20
                           Okay. Oh, okay.
               THE COURT:
                            It's that first sentence, that
21
               MR. CASTLE:
22
     I believe is an assertion that both defendants and
23
     the United States are making.
24
               THE COURT: Do you want that sentence out?
25
               MR. CASTLE:
                            Yes.
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THE COURT: All right. So you want that
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           You probably want 8 out, or at least the
 3
     statement of the facts there out?
 4
               MR. CASTLE:
                           Yes.
 5
               THE COURT: What else are you worried
 6
     about?
 7
               MR. CASTLE: On page 3 of the plea
 8
     agreement, there is an indication of -- may I have a
 9
     moment?
              I'm floating between two documents here.
10
               THE COURT: Are you thinking the sentencing
11
     stuff ought to come out?
12
               MR. CASTLE: No, I think the sentencing
13
     information is relevant. But at the beginning of --
14
     on page 3, paragraph 7D talks about the Court's role
15
     in accepting or not accepting the plea agreement.
16
     And I believe that that is going to be problematic,
17
    because it almost indicates that in that situation --
               THE COURT: That's the 801(d)(2)(A)
18
19
     problem?
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               MR. CASTLE: Yes, exactly. And it's also
21
     vouching. Because the agreement, obviously, was
22
     already accepted. So it indicates there that the
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     Court --
24
               THE COURT: Well, it's really not, because
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     they pled before a magistrate, they've accepted the
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plea but not the plea agreement.

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I understand. But the jury is MR. CASTLE: not going to know that. So the jury is not going to be steeped in that. What I am concerned about is that they'll look at that, and they'll see the date of the agreement. And there has been no rejection by the Court; that to be interpreted as the Court's approval of the plea agreement, and instead of having us do cross-examination, have to go through a number of hoops to say the Court hasn't agreed to it, where the jury is going to be looking at Your Honor, and wondering whether Your Honor has or hasn't, and expecting the Court to say I've either accepted it or haven't accepted it. Why do we need to put that in here, when it can possibly be interpreted as -- even if the parties don't invoke the imprimatur of the Court, it has that appearance.

THE COURT: All right. What else?

MR. CASTLE: The only other aspect is I believe we were objecting to the counsel for the attestation, or I'm not sure what the word would be, but the agreement on page at the end of the plea agreement, the attestation on page 9 of the attorney for the particular defendant witness.

THE COURT: Tell me what the problem with





1 that is. 2 MR. CASTLE: Well, it's his statement. 3 He's not testifying. And it's obviously a 4 testimonial statement that was made, it's a solemn declaration. 5 So just take out the Gary 6 THE COURT: 7 Mitchell here, his signature block, and paragraph to 8 which he attests? 9 MR. CASTLE: Yes. 10 THE COURT: What else? 11 That's it, Your Honor. MR. CASTLE: If the 12 Court doesn't buy my argument about the kind of being 13 super testimony, to just explain in a little more 14 detail. 15 THE COURT: Isn't what's going to happen is 16 you guys are going to impeach these guys with the 17 fact they've got a plea agreement? So probably what's going to happen is the Government is going to 18 19 go first, and they're going to do most of the heavy 20 lifting for you, or because of you. And so they're going to go into detail on this. 21 22 It's not -- this is me talking, you're the 23 defense lawyer -- but it's not a lot of vouching, 24 because it's coming in at the same time that they're

talking about it. It's not like they're going to

1 talk about it and then come back and support it with 2 the plea agreement. It's all coming in at the same 3 Here's the deal you got. Do you see much harm 4 with that? 5 MR. CASTLE: I don't see a lot. THE COURT: Let me ask -- I haven't talked 6 7 to the Government at all here -- but if they can live 8 with these -- excising these portions of the plea 9 agreement and the addendums, can everybody live with 10 this, this much will come in, as a contract? 11 Duncan? 12 MS. DUNCAN: Your Honor, I have one other 13 paragraph I'd like to suggest for redaction, and that 14 would be on page of 6, paragraph 12. "The defendant 15 stipulates that he does not possess any exculpatory 16 information regarding any of his charged 17 co-defendants." That's really a legal conclusion. And I don't think that that should be put in front of 18 19 the jury. 20

THE COURT: Okay. Anybody else? You could live with these redactions that we've talked to Mr. Castle and Ms. Duncan about?

MR. BENJAMIN: Your Honor, it's not so much a redaction, as it was a confusion that happens, when the Government listed the plea agreements that they

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     were going to use. And I was just going to -- I
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     guess we would object to any plea agreements as the
 3
     nontestifying defendants that have pled that are not
 4
     going to come in. The one specifically I'm thinking
     of was Santos Gonzalez, because he was on a list --
 5
     part of what happened when I was not here and Mr.
 6
 7
     Sindel was covering -- but I understand he was on a
 8
     list of people they're intending on using.
     relates to Mr. Gallegos. It's just something I want
 9
10
     to raise with the Court.
11
               THE COURT: I'm sorry, I'm not tracking
12
            This would be a witness that is not
13
     testifying, but they're bringing in his plea
14
     agreement?
15
               MR. BENJAMIN: His name was involved in
            I don't know if that's been rectified or not.
16
     that.
17
     But that's a concern, yes, Your Honor.
18
               THE COURT: Of course, you can certainly
19
     impeach somebody that's not here, if in another way
20
     they're testifying in the court. Is he going to be
21
     testifying in some way --
22
               MR. BENJAMIN:
                              No.
23
               THE COURT: -- somehow that doesn't involve
24
     him being in court?
25
               MR. BENJAMIN: No, Your Honor.
                                                He's, my
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1
     understanding, out.
 2
               THE COURT: Remind me who he is?
 3
               MR. BENJAMIN: Santos Gonzalez, Ms. Erlinda
 4
     Johnson's client.
 5
               THE COURT: All right. Anybody else got
     any candidates for redactions? Can you live with
 6
 7
     this, if the Government can live with it?
               All right. Mr. Castellano?
 8
 9
               MR. CASTELLANO: Your Honor, I just wanted
10
     to address the plea agreement regarding Santos
     Gonzalez. He's not testifying. And I admitted all
11
12
     the plea agreements in this case for purposes of the
13
     James hearing, so that's for a different
14
     consideration before the Court, not for trial
15
     testimony. That included Conrad Villegas and Santos
     Gonzalez, who are both not witnesses.
16
                                            It's for a
17
     different determination before the Court.
18
               MR. BENJAMIN: And, Your Honor, I
19
     apologize. I was just nervous.
20
               THE COURT: Well, but those portions of the
21
    plea agreement, you would not be -- correct me if I'm
22
     wrong -- you would not try to be bringing those in as
23
     an out-of-court statement under the co-conspirator
24
     exception, am I correct?
25
               MR. CASTELLANO: That's correct, for trial
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1	purposes. For purposes of the James hearing, we have
2	to establish the existence of a conspiracy.
3	THE COURT: All right.
4	MR. CASTELLANO: So it's to meet other
5	elements related to James.
6	THE COURT: All right. Okay. So does that
7	give you some comfort, Mr. Benjamin?
8	MR. BENJAMIN: It does, Your Honor.
9	THE COURT: Let me hear let me get Ms.
10	Sirignano before I turn this over completely to the
11	Government.
12	MS. SIRIGNANO: Your Honor, we're assuming
13	all these plea agreements have the same format;
14	correct?
15	THE COURT: Well, yeah, for purposes of
16	trying to do this. I know that there may be some
17	unique ones out there, but at least a box here,
18	seeing if we can hammer something out.
19	MS. SIRIGNANO: Thank you, Judge.
20	THE COURT: All right. Mr. Beck, do you
21	think you could live with these redactions? You get
22	the plea agreement in, but take out the portions that
23	the Court or defendants are most concerned about?
24	MR. BECK: So I think there is two answers.
25	Yes, but with the caveat that if something becomes



1 relevant during cross-examination. So I'm thinking, you know, the factual basis --2 3 I think you can still use those THE COURT: to impeach: You know, haven't you told this Court 4 5 such-and-such. I think you can still impeach a witness with a prior statement. So these things 6 7 don't go away. 8 Well -- and I think they could MR. BECK: 9 be admissible as prior consistent statements to rebut 10 the presumption that --THE COURT: They might. 11 12 MR. BECK: -- that they said something 13 different. 14 So what I'm saying I think we can live with 15 those -- and I think we'll propose other redactions 16 with the sentencing provisions, and things like 17 that -- and I think that's fine as a starting off basis. But I just -- I want the Court and everyone 18 19 to be aware that we may ask the Court to address that 20 based on what comes out in cross-examination. Could everybody live with these 21 THE COURT: 22 redactions, understanding that they may come in for 23 other purposes, if the Government lays some 24 foundation? But at least, when they're putting on a

witness, and they introduce the plea agreement, it

will have these redactions, at least these redactions?

Your Honor, we can live with MR. CASTLE: But I would ask that before the prosecution attempted to bring in redacted portions, that that be handled outside the presence of the jury, just because someone might open the door to a particular area of evidence, that's a theory of relevancy, it's not a theory of necessarily admissibility that deals with confrontation. So I can't imagine how -- even if you could open the door to the Government's statement that someone has provided substantial assistance, it's still a confrontation issue that needs to be dealt with. And so, just satisfying the 400 series doesn't necessarily satisfy the 800 series or the Constitution. So I think what they're proposing is that those are the right to reraise some of these issues, but it would have to be outside presence of the jury, in our opinion.

THE COURT: Can you agree that if you're going to get into prior inconsistent statement, or somehow the witness has opened this up, you'll just approach the bench before you --

MR. BECK: We would certainly ask the Court to allow us to do that before we intended to bring

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1	that up in open court.
2	THE COURT: Okay. All right. Mr. Adams?
3	MR. ADAMS: Yes, sir.
4	Judge, I just have one matter to put on the
5	record about incorporating our midstream Miranda
6	motion from 4275. Is this a good time to do that, or
7	should I hold until tomorrow?
8	THE COURT: Refresh my memory what 4275 is.
9	MR. ADAMS: We had about a day-long
10	suppression motion. It was a three-hour statement by
11	Mr. Garcia upon his arrest. He was not Mirandized
12	for the first 16 minutes.
13	THE COURT: You're talking about, do you
14	want to move it into this case?
15	MR. ADAMS: Yes, sir.
16	THE COURT: I think you have a document
17	that does that, right?
18	MR. ADAMS: We referenced it. I have the
19	specific ECF numbers. I mean, I'm happy to do it
20	tomorrow morning.
21	THE COURT: I thought Ms. Sirignano had
22	filed a motion
23	MR. ADAMS: She filed a motion. That
24	document wasn't specifically referenced. We
25	referenced it orally last week.



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1	THE COURT: Let's do it tomorrow.
2	MR. ADAMS: Thank you.
3	THE COURT: Do we have an agreement then on
4	the plea agreements coming in and how they're going
5	to come in? Anybody disagree with it? All right.
6	So that's what hold on just a second.
7	THE CLERK: Judge?
8	THE COURT: Yes.
9	THE CLERK: Doc 1486 outlines the motion
10	number, and the 4275 for this case, you've seen it,
11	it's a notice.
12	THE COURT: Okay. Let me leave that for
13	tomorrow. Because I want to make a few comments
14	tonight.
15	So we're going to take up the bad acts
16	tomorrow. Let me ramble just a little bit. You'll
17	just have to accept this, think about it overnight.
18	I know everybody is working hard, but I'm a little
19	bit frustrated by the bad acts. It's like we're both
20	trains or something passing in the night here, and
21	people, I think, are being too formalistic here.
22	When I got the Government to list out the
23	bad acts, remember what we were doing. The
24	defendants were coming in and saying some of what
25	they're going to use to prove enterprise and

racketeering activity, and that sort of thing, is going to be -- or in furtherance of the enterprise -- is going to be bad acts. We want to take a shot at it, we just don't want to take their word for it.

So I told the Government to do their traditional stuff, which is usually as a matter of caution, they do a notice that says something to the effect: Here's our 404(b); we don't agree with all this being 404(b), but here's all the bad things we're going to introduce.

And I was hoping that we would be able to figure out a way for the Court to make a decision on this. So I'm going to first fault the Government. It seems to me you've got to tell me what you think is 404(b) evidence. Because, if you do, you've got a certain amount of proof that you've got to do for a 404(b). If you're saying that, okay, what we're really doing is I want to use this information to show enterprise and furtherance of the enterprise's activity, then we go down a different path. And then I've got to make kind of a relevance, and say it's in that box. It's a res gestae type of argument. So I think, on the letters that you send, you've got to tell them more.

Defendants: I understand the Government



has to prove 404(b) to get it in, and the burden is on them. But you've got to help them. I mean, you can't just say: "The burden is on them." You've got to start telling me what these events are. I mean, I don't know about shoplifting and marijuana use, and things like that. So you've got to help me here. I think everybody is relying on a little bit of canned briefing, formalized briefing, and everybody is saying, Well, they've got the burden of proof. But you've got to educate me. I can't make an informed decision.

If you're not going to inform me, you're not going to help me out here, I will go through and I'll tell you what's in, what's out, based upon these letters and upon the briefing. But it ain't much. And, probably, people are not going to like the meat cleaver approach that I'm going to take. So you've got to educate me.

So think about it overnight, how you're going to do that, and how you're going to do it quickly. Are we going to do that in the morning?

Are we going to sit here and go through Christopher

Garcia's letter, and y'all educate me one by one, and I make baseball calls all morning, and all day long?

That's fine, that's one way of doing it. If you've

got a different approach -- we've got to get it going. Because I consider two things to be very crucial for me to do my job, the thing that keeps me awake, one is the 404(b) stuff, all this stuff coming up first thing in the morning, how are we going to do it so that we don't have a bunch of stuff coming into the trial that doesn't advance the enterprise or would not come under a 404(b) analysis.

enough things that they probably are going to not like coming into trial, that's going to come in like a freight train anyway, without talking about, you know, parking tickets and shoplifting, and that sort of stuff. And so we've got to get real here. So help me get real, in the morning, how we're going to do this.

The second thing is the James stuff, you know, the James hearing. What statements are going to come in as co-conspirator statements, and what statements are going to come in and satisfy Bruton/Smalls problems there?

Those are the two or three things that keep me awake at night. So help me do those. I want to do a good job. I don't want, you know, to have stuff floating around that shouldn't be floating around in

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this trial.
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               And, you know, at the same time, I don't
 3
     want to tell the Government how to try their case.
 4
     So I'm trying to balance those things.
 5
               All right. I appreciate your hard work --
 6
     no, got to go. Talk to me tomorrow.
 7
               Have a good evening. Appreciate it.
                                                       Ве
 8
     safe.
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                (The Court stood in recess.)
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3	UNITED STATES OF AMERICA
4	DISTRICT OF NEW MEXICO
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7	I, Jennifer Bean, FAPR, RDR, CRR, RMR, CCR,
8	Official Court Reporter for the State of New Mexico,
9	do hereby certify that the foregoing pages constitute
10	a true transcript of proceedings had before the said
11	Court, held in the District of New Mexico, in the
12	matter therein stated.
13	In testimony whereof, I have hereunto set my
14	hand on December 27, 2017.
15	
16	
17	\wedge
18	
19	Jennifer Bean, FAPR, RMR-RDR-CCR Certified Realtime Reporter
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